LYCOMING COLLEGE

Catalog 1979-80

NOTICE OF NON-DISCRIMINATION POLICY

Lycoming College welcomes applications from prospective students regardless of age, sex, race, religious preference, physical disability, financial resources, color, national or ethnic origin. This policy is in compliance with the requirements of Title VI of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972, and all other applicable federal, state and local statutes, ordinances and regulations.

A QUICK LOOK AT LYCOMING

Location	Williamsport, Pennsylvania 17701 Phone (717) 326-1951
Founded	1812
Enrollment (Fall, 1978)	1179 (689 men and 490 women)
Accreditation	Middle States Association of Colleges and Schools University Senate of The United Methodist Church
Church Affiliation	United Methodist
Student /Faculty Ratio	Sixteen to one
Library Volumes	130,000; 875 current periodical titles
Size of Campus	Main campus: 20 acres, plus 12-acre Athletic Field
Number of Buildings	Nineteen (With a Physical Education/Recreation Center under construction)
Calendar	4-4-1 (1 = Optional May Term)
1979-80 Fixed Charges	Tuition ..... $3300 Room & Board ..... $1600 Total ..... $4900 May and Summer term charges are not included in these figures. Books and supplies normally cost $75 to $150 per year. Allowance must be made for laundry, travel, clothing, and personal needs.
Financial Aid	Lycoming students received more than $1.9 million in various kinds of financial assistance last year. Prospective students should discuss their financial needs with the Director of Student Aid.

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CHAPTER I

INTRODUCTION TO LYCOMING

THIS IS LYCOMING

Lycoming College is an independent, coeducational liberal arts institution related to The United Methodist Church.

Lycoming is located in Williamsport, Pennsylvania, the gateway to the picturesque "Endless Mountains" and the beautiful West Branch Valley of the Susquehanna River. Greater Williamsport has a population of 85,000 and is within 200 miles of Washington, D.C., Baltimore, Philadelphia, New York, Syracuse, Rochester, Buffalo and Pittsburgh. The campus is situated on a slight prominence near the center of the city.

Lycoming welcomed its 134th class in September, 1978, and began the year with an enrollment of 1,179, consisting of 490 women and 689 men. These students came to the College from 16 states and the majority resided in Pennsylvania, New Jersey and New York.

The academic significance of Lycoming derives from its enduring commitment to the value of a liberal education, carefully designed mission, and highly trained faculty of teacher-scholars, 67% of whom have earned doctorates from the nation's outstanding universities.

The principal aim of Lycoming College is to use its resources to provide for its students the finest possible undergraduate education. The College serves primarily to help each student develop a central core of values, awarenesses, strategies, skills, and information that is integrated and coherent enough to lead to a productive and fulfilling life in an enormously complex world, and at the same time is sufficiently open and flexible to encourage continuous growth and development.

Lycoming enjoys a continuing reciprocal relationship with The United Methodist Church. It has consistently supported the Methodist tradition of providing educational opportunities for persons of all religious faiths. Within this setting of religious concern, the search for values must continue to be an important function of this institution.

Lycoming is a member of the Association of American Colleges, the Pennsylvania Association of Colleges and Universities, the Commission for Independent Colleges and Universities, the National Commission on Accrediting, and the National Association of Schools and Colleges of The United Methodist Church. It is accredited by the Middle States Association of Colleges and Schools and the University Senate of The United Methodist Church.

HISTORY

In 1812 the Williamsport Academy was founded, offering an elementary and secondary school curriculum. The Academy became Williamsport Dickinson Seminary in 1848 under the patronage of The Methodist

Episcopal Church. The Seminary continued as a private boarding school until 1929 when the curriculum was expanded to include two years of college. The name of the institution was changed at this time to Williamsport Dickinson Seminary and Junior College. In 1947 the junior college became a four-year degree-granting college of liberal arts and sciences and the name Lycoming College was adopted. Lycoming, derived from an Indian word "lacomic" meaning "Great Stream," has been common to north central Pennsylvania since colonial times.

CHAPTER II

ADMISSION TO LYCOMING

POLICY AND STANDARDS

Lycoming College welcomes applications from prospective students regardless of age, sex, race, religious preference, financial resources, color, national or ethnic origin or physical impairment. Selective admission is based on the following standards:

—graduation from an accredited secondary school;
—completion of a college preparatory program that includes English and mathematics plus units in foreign language, natural science and social science;
—College Entrance Examination Board Scholastic Aptitude Test (SAT) or American College Test (ACT) scores at a satisfactory level;

A secondary school student of exceptional maturity and with significant academic preparation may apply to Lycoming as a candidate for early admission. If admitted, the student enters the College after completing the junior year in school. Special students who are not enrolled in a degree program and who wish to enroll in one or more courses in any term are welcome to apply.

Lycoming is fully approved for the educational program for veterans under Federal Public Laws 550, 634, 894.

APPLICATION AND SELECTION PROCESS

The application for admission is processed in the following manner:

—The application, obtained from the Admissions Office, and the following credentials should be filed by April 1st for those considering fall term admission. Applications will be considered after April 1st on a space-available basis;
—application fee of $15 (non-refundable) must accompany the completed application form,
—official secondary school transcript forwarded by the school guidance office,
—results of either the Scholastic Aptitude Test (SAT) or the American College Test (ACT),

The completed application is evaluated with every effort being made to insure individualization of this process by identifying the academic achievement, talents, qualities, and interests of the applicant. Lycoming notifies applicants of their acceptance on a rolling schedule soon after all credentials have been received and evaluated. In some instances, additional information may be needed to complete the evaluation, such as mid-year grades and senior SAT or ACT score reports;

—Applicants who have been admitted must notify the College of their intention to attend by May 1st, the Candidates' Reply Date.

This notification must be accompanied by a $100 advance deposit which is applicable to the tuition charges of the first semester of enrollment. After May 1st, the $100 deposit is not refundable.

ADVANCED STANDING BY TRANSFER

The College welcomes transfer students from other accredited colleges and universities according to the following standards and procedures:

—Applicants must be in good academic standing with a minimum cumulative grade point average of 2.0 at their current or previous college;

—All courses passed that are comparable to the curriculum at Lycoming will be accepted for transfer;

—The grades earned in all transferable courses are included in the computation of the cumulative grade point average;

—Academic standing at Lycoming will be based on an evaluation of all courses attempted at all other institutions;

—The final eight courses for the bachelor of arts degree must be taken at Lycoming;

—Official copies of transcripts from all institutions attended must be submitted as a part of the admission application.

ADMISSIONS OFFICE LOCATION AND HOURS

Prospective students and their families are invited to campus for a student-conducted tour and a meeting with an Admissions Officer who will provide additional information about the College and answer any questions from the applicant.

The Admissions Office is located on the first floor of Long Hall. For an appointment telephone (717) 326-1951, Ext. 221 or write Office of Admissions, Lycoming College, Williamsport, PA 17701. Office hours are as follows:

Weekdays	—September through April	9:00 a.m. to 4:30 p.m.
	—May through August	9:00 a.m. to 4:00 p.m.
Saturdays	—September through April	9:00 a.m. to 12:00 noon
	—May through August	No Saturday Hours.

CHAPTER III

EXPENSES AND FINANCIAL AID

EXPENSES FOR THE ACADEMIC YEAR 1979-80

The following expenses are effective for the regular Fall and Spring Semesters. The College reserves the right to adjust fees at any time without notice, including increasing Spring Semester fees should there be a considerable increase in the price of commodities and/or services during the Fall Semester. The fees for each semester are payable not later than the second day of classes for the semester.

FEES	PER SEMESTER	PER YEAR
Comprehensive Fee	$1,650	$3,300
Board and Room Rent	800	1,600
Total	$2,450	$4,900

One-Time Fees and Deposits

Application Fee	$ 15
Admissions Deposit	100
Contingency Deposit	50

Part-Time Student Fees

Application Fee	$ 15
Each Unit Course	412.50

Additional Charges

Applied Music Fee (half-hour per week per semester)	$ 75
Cap and Gown Rental	prevailing cost
Laboratory Fee per Unit Course	5 to 30
Late Payment Fee	25
Parking Permit (for the academic year)	10
Parking Permit With Reserved Space (for the academic year)	40
Practice Teaching Fee (Payable in Junior Year)	130
R.O.T.C. Basic Course Deposit (Payable at Bucknell University)	40
R.O.T.C. Advanced Course Deposit (Payable at Bucknell University)	40
Transcript Fee (No charge to full-time students)	3
Medical Questionnaire Fee (Payable to Medical Datamation, Inc.)	10

The comprehensive fee covers the regular course load of three to four courses each semester. Resident students must board at the College unless, for extraordinary reasons, authorization is extended for other

eating arrangements. If a double room is used as a single room, an additional charge of $75 per semester is made. The estimated cost for books and supplies ranges from $75 to $150 per year, depending on the course of study pursued. Special session (May Term and Summer Term) charges for tuition, room, and board are established during the Fall Semester.

ENTRY FEES AND DEPOSITS

Application Fee—All students applying for admission are to submit an application fee of $15 with the application. This charge is to defray the cost of processing the application and is non-refundable.

Admissions Deposit—After students have been notified of their admission to the College, they are required to make an admissions deposit to confirm their intention to matriculate. The Admissions Deposit of $100 is applied to the general charges for the first semester of attendance. After May 1st the deposit is non-refundable if one fails to matriculate.

Contingency Deposit—A Contingency Deposit of $50 is required of all full-time students as a guarantee for payment of damages to or loss of college property, library fines, parking fines and similar penalties imposed by the College. The Contingency Deposit is collected along with other charges for the initial semester. The balance of this deposit is refunded after all debts to the College have been paid, either upon graduation or upon written request submitted to the Registrar two weeks prior to voluntary permanent termination of enrollment at Lycoming College.

PARTIAL PAYMENTS

For the convenience of those who find it impossible to follow the regular schedule of payments, arrangements may be made with the College Business Manager for the monthly payment of college fees through various educational plans. Additional information concerning partial payments may be obtained from the Business Manager or Director of Admissions.

REFUNDS FOR STUDENTS WHO WITHDRAW

Refunds of tuition and board are made to students who voluntarily withdraw from the College while in good standing according to the following schedule for the Fall and Spring Semesters and the comparable period for the May and Summer Terms.

Period of Withdrawal	Refund %	Charge %
First four weeks of the semester	70	30
Second four weeks of the semester .	40	60
Third four weeks of the semester ...	10	90
After twelve weeks	—0—	100

The date on which the Dean of the College approves the student's withdrawal form is considered the official date of withdrawal.

Room charges, which are established on a semester basis, and special charges, such as laboratory fees, are not refundable if a student leaves the College prior to the end of a semester.

Full-time students are not eligible for a refund of tuition for an individual course if the course is dropped after the first ten days of either regular semester.

DAMAGE CHARGES

Wherever possible, damage to dormitory property will be charged to the person or persons directly responsible. Damage and breakage occurring in a room will be the responsibility of students occupying the room. Hall and bathroom damage will be the responsibility of all students of the section where damage occurs. Actual costs of repairs will be charged.

NON-PAYMENT OF FEES PENALTY

Students will not be registered for courses in a new semester if their accounts for previous attendance have not been settled. Diplomas, grade reports, transcripts, and certifications of withdrawals in good standing are issued only when a satisfactory settlement of all financial obligations has been made in the Business Office.

FINANCIAL AID POLICY AND PROCEDURES

The dominant factor in determining the amount of financial aid awarded to individual students is the establishment of need. Scholarships may be awarded on the basis of financial need and academic ability, while grants are provided exclusively on the basis of financial need. Long-term, low-cost educational loans are available from federal and state sources to most students who can demonstrate need. Part-time employment is available to students who are in good academic standing.

To apply for financial assistance, obtain the Financial Aid Form (F.A.F.) from the secondary school guidance office or the Student Aid Office at Lycoming. Submit the completed form to the College Scholarship Service, P.O. Box 176, Princeton, NJ 08540, as early as possible after January 1st. Renewal applications are required annually.

Scholarships—Freshman Recognition Scholarships of $700 each are awarded to applicants who have superior academic qualifications but do not demonstrate any financial need. These scholarships are renewable each year if the student maintains a minimum 3.25 cumulative grade point average. Other scholarships, ranging from $300 to full tuition, are awarded to freshmen who rank in the top fifth of their secondary school class and have a combined score over 1100 on the College Entrance Examination Board Scholastic Aptitude Test (SAT). These scholarships are renewable each year if the student maintains a minimum 3.00 cumulative grade point average.

Grants-In-Aid—Lycoming has established an extensive program of grants-in-aid for worthy students who do not qualify for scholarships. Awards are based on demonstrated need and the prospect of the student contributing positively to the college community. Renewal requires continued financial need, maintenance of satisfactory academic and citizenship standards, and participation in college activities.

Ministerial Grants-In-Aid—Children of ministers of the Central Pennsylvania Annual Conference of The United Methodist Church receive grants equal to one-third of the charges for tuition, while children of ministers of other Annual Conferences of The United Methodist Church and of other denominations receive grants equal to one-fourth of the charges for tuition. Students who will be entering the ministry may apply for a preministerial student grant equal to one-fourth tuition. Applicants must complete and submit the Financial Aid Form (F.A.F.) referred to above and pre-ministerial students must also submit the Application for Pre-Ministerial Grant. If an applicant demonstrates more need for financial assistance than a ministerial grant-in-aid

provides, additional types of aid will be considered. These grants-in-aid are part of a total financial assistance award to meet demonstrated need and are not given in addition to awards designed to meet established needs.

Federal Basic Educational Opportunity Grants (BEOG)—These grants, established through the Educational Amendments of 1976, provide up to $1,800 per year for full-time students who can demonstrate financial need. Application can be made when submitting the Financial Aid Form (F.A.F.) or by separate application to the federal government on forms which are available in secondary school guidance offices and the Student Aid Office at Lycoming. All students are urged to apply for this program.

Federal Supplemental Educational Opportunity Grants (SEOG)—This federal government program provides additional assistance to those students with exceptional financial need. Awards are made in amounts ranging from $200 to $1,500 and are based entirely on financial need. Renewal is possible if the applicant has no reduction in financial need in succeeding years.

Federal National Direct Student Loans (NDSL)—Federal government loan funds are available through the National Defense Education Act of 1958. Low interest loans of up to $1,500 per year are granted on

the basis of demonstrated need. Repayment does not begin until after graduation or withdrawal from college. Loans are normally renewed annually if the applicant files a renewal application by May 1st.

Federal College Work-Study Grants (CWSP)—An opportunity is provided through this program for students to earn some part of their college expenses and to gain some practical experience by working on campus or in selected off-campus programs. Federal government income guidelines must be met to be eligible for this program. Students who do not meet these guidelines should consult with the Career Development Center or Student Aid Office for other employment opportunities.

Other Sources of Financial Assistance—

State Grants. All applicants for financial aid are urged to investigate programs sponsored by their home states and to learn about and heed application deadlines. Pennsylvania applicants should apply for state aid during their senior year in high school, usually before April 30th. For additional information, applicants should contact their secondary school guidance counselor or write: Pennsylvania Higher Education Assistance Agency (PHEAA), Towne House, Harrisburg, PA 17102.

State Guaranteed Loans. Most states, including Pennsylvania, New Jersey, and New York, provide state-guaranteed loans through local banks. This program provides low interest loans up to $2,500 per year for educational expenses with repayments extended over a long-term payment schedule. Applicants should consult their local banks early in their senior year.

Community Scholarships. In many communities, foundations and organizations, and in some cases high schools, provide funds for worthy students. Applicants should consult with their secondary school guidance counselor or principal.

Education Financing Plans. The Student Aid Office at Lycoming will provide information, upon request, about plans which enable parents to pay college expenses on a monthly basis through selected companies.

Reserve Officers Training Corps (ROTC) Scholarships. Students who participate in the Army ROTC are eligible for three, two, and one-year ROTC scholarships to finance tuition, books, laboratory fees and other charges with the exception of room and board. ROTC scholarship students also receive $100 per month during the academic year.

Reserve Officers Training Corps (ROTC) Stipends. Students who participate in the Army ROTC program receive $100 per academic month of their junior and senior years. They also receive half of a second lieutenant's pay plus travel expenses for a six-week advanced summer camp between the junior and senior years.

ADDITIONAL INFORMATION CONCERNING FINANCIAL AID CAN BE OBTAINED BY WRITING THE STUDENT AID OFFICE, LYCOMING COLLEGE, WILLIAMSPORT, PA 17701 OR BY TELEPHONING (717) 326-1951.

CHAPTER IV

THE ACADEMIC PROGRAM

THE DEGREE

Lycoming is committed to the principle that a liberal arts education is the best hope for an enlightened citizenry. Consequently, the bachelor of arts degree is conferred upon the student who has completed an educational program incorporating the two principles of the liberal arts known as distribution and concentration. The objective of the distribution principle is to insure that the student achieves breadth in learning through the study of the major dimensions of human inquiry, namely, the Humanities, the Social Sciences and the Natural Sciences. The objective of the concentration principle is to provide depth of learning through completion of a program of study in a given discipline or subject area known as the major.

REQUIREMENTS FOR THE DEGREE

Every degree candidate is expected to complete the following requirements in order to qualify for graduation:

—Complete the Distribution Program.

—Complete a major consisting of at least eight courses while achieving a minimum grade point average of 2.0 in those courses stipulated as comprising the major.

—Earn one year of credit in Physical Education. All students must demonstrate competence in swimming. (Medical exemptions may be granted by the College Physician after an examination and review of the student's medical history and family physician's report.)

—Pass a minimum of 128 semester hours (32 unit courses) with a minimum cumulative average of 2.0. Additional credits beyond 128 semester hours may be completed provided the minimum 2.0 cumulative average is maintained.

—Complete *in residence* the final eight courses offered for the degree at Lycoming.

—Satisfy all financial obligations incurred at the College.

—Complete the above requirements within seven years of continuous enrollment following the date of matriculation.

All exemptions or waivers of specific requirements are made by the Committee on Academic Standing.

THE DISTRIBUTION PROGRAM

A course can be used to satisfy only one distribution requirement. Courses for which a grade of "S" is recorded may not be used toward the fulfillment of the distribution requirements. (Refer to page 20 for an explanation of the grading system.) A course in any of the following

distribution requirements refers to a full-unit (four semester hours) course taken at Lycoming, any appropriate combination of fractional unit courses taken at Lycoming which accumulate to four semester hours, or any single course of three or more semester hours transferred from another institution.

English—All students are required to pass or exempt English 2, which must be taken no later than the second semester (usually the Spring Semester) of their sophomore year, and one other English course, excluding English 1. In addition, all students who have not been exempted from English 1 must receive a mark of "Satisfactory" in English 1 before being permitted to enroll in English 2. Students may be exempted from English 1 on the basis of high achievement on both objective parts of the CLEP General Examination in English Composition, which may be taken during the year before entrance or during Freshman Orientation. Furthermore, some students may be eligible, after consultation with the English Department, to exempt English 2 on the basis of their CLEP performance.

Foreign Language or Mathematics—Students are required to meet a minimum basic requirement in either a foreign language or mathematics.

Foreign Language. Students may choose from among French, German, Greek, Hebrew, or Spanish and are required to pass two courses on the intermediate or higher course level. Placement at the appropriate course level will be determined by the faculty of the Department of Foreign Languages and Literatures. Students who have completed two or more years of a given language in high school are not admitted for credit to the elementary course in the same foreign language except by written permission of the chairman of the department. French 28 and Spanish 28 will meet part of this requirement only if the section taught in the language is completed.

Mathematics. Students are required to demonstrate competence in basic algebra and to pass three units of mathematics other than Mathematics 5. Competence in basic algebra may be demonstrated either by passing the basic algebra section of the Mathematics Placement Examination or by passing Mathematics 5. By demonstrating higher competence on the Mathematics Placement Examination, students may reduce the requirement to two units of mathematics.

Religion or Philosophy—Students are required to pass two courses in either Religion or Philosophy.

Fine Arts—Students are required to pass two courses as indicated in Art, Literature, Music or Theatre.

Art. Any two courses.

Literature. Any two literature courses selected from the offerings of the Departments of English and Foreign Languages and Literatures.

Music. Any of the following combinations of music offerings totaling the equivalent of eight semester hours:

—Two courses from those numbered Music 10 through Music 46.

—Eight semesters of applied music (private lessons) and/or en-

semble (choir, band) from courses numbered 60 through 69, earned fractionally as follows:

—(1) For private lessons (Music 60 through 66), a one-half hour lesson per week earns one half hour credit, and a one-hour lesson earns one hour of credit. Note: no more than one hour of private lessons may be taken in one semester, and there are extra fees for these lessons. (For details see Music Department course offerings described elsewhere in this catalog.)

—(2) Credit may be earned for participation in the college choir (Music 68) and/or band (Music 69); however, a student may earn no more than one hour each semester even though participating in both band and choir. (For further details please see the Music Department offerings elsewhere in this catalog.)

Theatre. Any two courses numbered 10 and above.

Natural Science—Students are required to pass any two courses in one of the following disciplines: Astronomy/Physics, Biology, Chemistry.

History and Social Science—Students are required to pass two courses as indicated in Economics, History, Political Science, Psychology, or Sociology/Anthropology.

Economics. Any two courses.

History. Any two courses.

Political Science. Any two courses.

Psychology. Psychology 10, plus one course usually chosen from among Psychology 15, 16, 30, 31, 32, or 38.

Sociology/Anthropology. Sociology/Anthropology 10 plus another course.

THE MAJOR

Students are required to complete a series of courses in one departmental or interdisciplinary (established or individual) major. Specific course requirements for each major offered by the college are listed in the Curriculum section of this catalog, beginning on page 39. Students must earn a precise 2.0 or better average in those courses stipulated as comprising the major. (This requirement is not met by averaging the grades for all courses completed in the major department.) Students must declare a major by the beginning of their junior year. Departmental and established interdisciplinary majors are declared in the Office of the Registrar, whereas individual interdisciplinary majors must be approved by the Committee on Curriculum Development. Students may complete more than one major, each of which will be recorded on the transcript. Students may be removed from major status if they are not making satisfactory progress in the major. This action is taken by the Dean of the College upon the recommendation of the department, coordinating committee (for established interdisciplinary majors) or Curriculum Development Committee (for individual interdisciplinary majors). The decision of the Dean of the College may be appealed to the

Academic Standing Committee by the student involved or the recommending department or committee.

Departmental Majors—Departmental majors are available in the following areas:

Accounting
Art
Astronomy
Biology
Business Administration
Chemistry
Economics
English
Foreign Languages and Literatures
French, German, Spanish
History
Mathematics
Music
Philosophy
Physics
Political Science
Psychology
Religion
Sociology/Anthropology
Theatre

Established Interdisciplinary Majors—The following Established Interdisciplinary Majors include course work in two or more departments:

Accounting-Mathematics
American Studies
Criminal Justice
International Studies
Literature
Mass Communications
Near East Culture and Archeology

Individual Interdisciplinary Majors—Students may design a major which is unique to their needs and objectives and which combines course work in more than one department. This major is developed in consultation with the student's faculty adviser and with a panel of faculty members from each of the sponsoring departments. The application is acted upon by the Curriculum Development Committee. The major normally consists of ten courses beyond those taken to satisfy the distribution requirements. Students are expected to complete at least six courses at the junior or senior level. Examples of individual interdisciplinary majors are Racial and Cultural Minorities, Illustration In the Print Medium, Environmental Law, Advertising, Human Behavior, and Images of Man.

ACADEMIC ADVISEMENT

One advantage of a small college is the rich experience gained by the close association of students and faculty. The advisement program at Lycoming enables students to discuss academic and other problems as well as opportunities with faculty advisers, instructors, and the staffs of the Dean of the College and the Dean of Student Services.

At the beginning of their first semester of enrollment, freshmen are assigned a faculty adviser who is prepared to assist new college students with the challenges of an unfamiliar social and academic environment. All students are required to have a faculty adviser, and students who have declared a major must have an adviser from within the major department or program.

Although the advisement program is an important part of the Lycoming academic experience, students are expected to accept full responsibility for their academic programs, including satisfactory completion of program and college-wide requirements.

Special advising for selected professions is provided by the following faculty advisory groups: Health Professions Advisory Committee, Legal Professions Advisory Committee, Medical Technology Advisory Committee, Theological Professions Advisory Committee. Students interested in these professions should register with the respective committee during their first semester of enrollment at Lycoming or as soon as they make a decision to enter the respective profession.

REGISTRATION

During the registration period, students file a schedule form with the Office of the Registrar. The filing of this form by students and its acceptance by the College is evidence of a commitment by students to perform in the courses listed to the best of their abilities. Any change in the schedule of courses listed on the form, including changes in sections, without the formal approval of the Office of the Registrar will result in a grade of F. Students may not receive credit in courses in which they are not registered. Registration procedures may not be initiated after the close of the registration period.

During the first ten days of classes students may drop any course without any record of such enrollment appearing on the permanent record, and they may add any course that is not closed, but the approval of the instructor is required during the last five days. Students wishing to drop a course between the tenth day and the twelfth week of classes must secure a withdrawal form from the Office of the Registrar, which is presented to the instructor of the course in question. The instructor assigns a withdrawal grade based on the level of the student's performance from the beginning of the course to the date of withdrawal. Withdrawal grades are not computed in the grade point average. Students may not withdraw from courses after the twelfth week of a semester, and the comparable period during the May and Summer Terms.

THE UNIT COURSE SYSTEM

Instruction at Lycoming College is organized, with few exceptions, on a departmental basis. Most courses are unit courses, meaning that each course taken is considered to be equivalent to four semester hours of credit. Exceptions occur in applied Music courses, which are offered for either one-half or one semester hour of credit, and in departments that have elected to offer certain courses for the equivalent of two semester hours of credit. Further, Independent Studies and Internships carrying two semester hours of credit may be designed. The normal student course load is four courses during the Fall and Spring Semesters. Students who elect to attend the special sessions may enroll in one course during the May Term and one or two courses in the Summer Term. A student is considered full time when enrolled for a minimum of three courses during the Fall or Spring Semesters, one course for the May Term and two courses for the Summer Term. Students may enroll in five courses during the Fall and Spring Semesters if they are Lycoming Scholars or were admitted to the Dean's List at the end of the previous semester. Exceptions may be granted by the Dean of the College. Overloads are not permitted during the May and Summer Terms.

THE SYSTEM OF GRADING AND REPORTING OF GRADES

The evaluation of student performance in credit courses is indicated by the use of traditional letter symbols. These symbols and their definitions are as follows:

A	*Excellent*	—Signifies superior achievement through mastery of content or skills and demonstration of creative and independent thinking.
B	*High Pass*	—Signifies better-than-average achievement wherein the student reveals insight and understanding.
C	*Pass*	—Signifies satisfactory achievement wherein the student's work has been of average quality and quantity. The student has demonstrated basic competence in the subject area and may enroll in additional course work.
D	*Low Pass*	—Signifies unsatisfactory achievement wherein the student met only the minimum requirements for passing the course and should not continue in the subject area without departmental advice.
F	*Failing*	—Signifies that the student has not met the minimum requirements for passing the course.
I	*Incomplete Work*	—Assigned in accordance with the restrictions of established academic policy.

S	*Passing Work, no grade assigned*	—Converted from traditional grade of D or better.
U	*Failing work, no grade assigned.*	—Converted from traditional grade of F.
X	*Audit*	—Work as an auditor, for which no credit is earned.
W	*Withdrawal*	—Signifies withdrawal from the course early in the term when it cannot be determined that the student is passing or failing.
WP	*Withdrawal, passing*	—The student was passing at the time of withdrawal; no credit is earned.
WF	*Withdrawal, failing*	—The student was failing at the time of withdrawal; no credit is earned.

Use of the satisfactory/unsatisfactory grading option is limited as follows (this does not apply to English 1):

—Students may enroll on an S/U basis in no more than one course per semester and no more than four courses during their undergraduate career;

—S/U courses completed after declaration of the major may not be used to satisfy a requirement of that major, including courses required by the major department which are offered by other departments. (Instructor-designed courses are excepted from this limitation.)

—Courses for which a grade of S is recorded may not be used toward fulfillment of any distribution requirement.

—Students may not enroll in English 2 on an S/U basis.

—A course selected on an S/U basis which is subsequently withdrawn will not count toward the four-course limit.

—Instructor-designated courses may be offered during the May Term with the approval of the Dean of the College. Such courses are not counted toward the four-course limit.

—S/U grades are not computed in the grade point average.

—Students electing the S/U option may designate a minimum acceptable letter grade of A or B. If the letter grade actually earned by the student equals or exceeds this minimum, that letter grade is entered on the student's permanent record and is computed in the grade point average. In such a case, the course does not count toward the four-course limit. If the student does not indicate a minimum acceptable letter grade or if the letter grade actually earned is lower than the minimum designated by the student, the Registrar substitutes an S for any passing grade (A, B, C, or D) and a U for an F grade.

—Students must declare the S/U option before the end of the period during which courses may be added during any given semester or term.

—Instructors are not notified which of their students are enrolled on an S/U basis.

—Students electing the S/U option are expected to perform the same work as those enrolled on a regular basis.

Incomplete grades may be given if, for absolutely unavoidable reasons (usually medical in nature), the student has not been able to complete the work requisite to the course. An incomplete grade must be removed within six weeks of the next regular semester.

ATTENDANCE

The academic program at Lycoming is based upon the assumption that there is value in class attendance for all students. Individual instructors have the prerogative of establishing reasonable absence regulations in any course. The student is responsible for learning and observing these regulations.

ACADEMIC STANDING AND ACADEMIC HONESTY

Students are in good academic standing when their cumulative and semester grade point averages are precisely 2.0 ("C") or better. If either of these averages is below this level, the student is considered to be in academic difficulty and is placed on probation for one semester, or suspended for one semester, or dismissed from the College according to policies established by the faculty. Students are subject to dismissal at the time the number of unsuccessful course attempts (grades F, U, W, WP, WF) exceeds 24 semester hours except in the case of withdrawal for medical or psychological reasons. Exceptions to this maximum may be granted by the Academic Standing Committee in the case of readmission and transfer applicants.

The integrity of the academic process of the College requires honesty in all phases of the instructional program. The College assumes that students are committed to the principle of academic honesty. Students who fail to honor this commitment are subject to dismissal from the College. Procedural guidelines and rules for the adjudication of cases of academic dishonesty are printed in *The Faculty Handbook* and *The Pathfinder* (the student academic handbook), copies of which are available in the library.

CREDIT BY EXAMINATION

Advanced Placement—Entering freshmen who have completed an advanced course while in secondary school and who have taken the appropriate advanced placement examination of the College Entrance Examination Board (CEEB) are encouraged to apply for credit and advanced placement at the time of admission. A grade of three or above is considered satisfactory.

College Level Examination Program (CLEP)—Students may earn college credit for superior achievement through CLEP. By achieving at the 75th percentile or above on the General Examinations and the 65th percentile or above on approved Subject Examinations, students may

earn up to 50 percent of the course requirements for a bachelor of arts degree. Although these examinations may be taken after enrollment, new students who are competent in a given area are encouraged to take the examinations of their choice during the second semester of their senior year so that Lycoming will have the test scores available for registration advisement for the first semester of enrollment. Further information about CLEP may be obtained through the secondary school guidance office or the Office of Admissions at Lycoming College.

ACADEMIC HONORS

Dean's List—Students are admitted to the Dean's List at the end of the Fall and Spring Semesters if they have completed at least four courses with other than S/U grades and have a minimum grade point average of precisely 3.50 for the semester.

Graduation Honors—Students are awarded the bachelor of arts degree with honors when they have earned the following precise grade point averages based on all courses attempted, including courses transferred from other institutions to Lycoming:

summa cum laude 3.90-4.00
magna cum laude 3.50-3.89
cum laude 3.25-3.49

Academic Honor Awards and Societies—Superior academic achievement is recognized through the conferring of awards at the annual Honors Day Convocation and Commencement and through election to membership in the following honor societies:

Blue Key ..... Freshman Men
Gold Key ..... Freshman Women
Omicron Delta Epsilon ..... Economics
Phi Alpha Theta ..... History
Psi Chi ..... Psychology
Sigma Pi Sigma ..... Physics
Pi Gamma Mu ..... Social Science
Pi Sigma Alpha ..... Political Science
Phi Kappa Phi ..... General Academic

Departmental Honors—Honors projects are normally undertaken only in a student's major and are available only to exceptionally well-qualified students who have a solid background in the area of the project and are capable of considerable self-direction. The prerequisites for registration in an honors program are as follows:

—A faculty member from the department(s) in which the honors project is to be undertaken must agree to be the director and must secure departmental approval of the project.

—The director, in consultation with the student, must convene a committee consisting of two faculty members from the department in which the project is to be undertaken, one of whom is the director of the project, and one faculty member from each of two

other departments related to the subject matter of the study.

—The honors committee must then certify by their signatures on the application that the project in question is academically legitimate and worthy of pursuit as an honors project, and that the student in question is qualified to pursue the project.

—The project must be approved by the Committee on Individual Studies.

Students successfully complete honors projects by satisfying the following conditions in accordance with guidelines established by the Committee on Individual Studies:

—The student must produce a substantial research paper, critical study, or creative project. If the end product is a creative project, a critical paper analyzing the techniques and principles employed and the nature of the achievement represented in the project shall be submitted.

—The student must successfully explain and defend the work in a final oral examination given by the honors committee.

—The honors committee must certify that the student has successfully defended the project and that the student's achievement is clearly superior to that which would ordinarily be required to earn a grade of "A" in a regular independent studies course.

—The Committee on Individual Studies must certify that the student has satisfied all of the conditions mentioned above.

Except in unusual circumstances, honors projects are expected to involve independent study in two consecutive unit courses. Successful completion of the honors project will cause the designation of honors in that department to be placed upon the permanent record. Acceptable theses are deposited in the college library. In the event that the study is not completed successfully, or is not deemed worthy of honors, the student shall be re-registered in independent studies and given a final grade for the course.

SPECIAL FEATURES

Independent Studies—Independent Studies are available to any qualified student who wishes to engage in and receive academic credit for any academically legitimate course of study for which he or she could not otherwise receive credit, and may be pursued at any level (introductory, intermediate, or advanced) and in any department, whether or not the student is a major in that department. Studies projects which duplicate catalog courses are sometimes possible, and are subject to the same provisions which apply to all studies projects. In order for a student to be registered in an independent study course, the following conditions must be satisfied:

—An appropriate member of the faculty must agree to supervise the project and must certify by signing the application form that the project is academically legitimate and involves an amount of work appropriate for the amount of academic credit requested, and that the student in question is qualified to pursue the project.

—The studies project must be approved by the chairman of the department in which the studies project is to be undertaken.

—After the project is approved by the instructor and by the chairman of the appropriate department, the studies project must be approved by the Committee on Individual Studies.

In addition, participation in independent studies projects, with the exception of those which duplicate catalog courses, is subject to the following:

—Students may not engage in more than one independent studies project during any given semester.

—Students may not engage in more than two independent studies projects during their academic career at Lycoming College.

As with other academic policies, any exceptions to these two rules must be approved by the Academic Standing Committee.

Internship Program—An internship is a course jointly sponsored by the College and a public or private agency or subdivision of the College in which a student is enabled to earn credit by participating in some active capacity as an assistant, aide, or apprentice. The objectives of the internship program are (1) to further the development of a central core of values, awarenesses, strategies, skills, and information through experiences outside the classroom or other campus situations, and (2) to facilitate the integration of theory and practice by encouraging students to relate their on-campus academic experiences more directly to society in general, and to possible career and other post-baccalaureate objectives in particular.

Any junior or senior student in good academic standing may petition the Committee on Individual Studies for approval to serve as an intern for one or two semesters. A maximum of 16 credits can be earned. Guidelines for program development, assignment of tasks, and academic requirements such as exams, papers, reports, grades, etc., are established in consultation with a faculty director at Lycoming and an

agency supervisor at the place of internship.

Students with diverse majors have participated in a wide variety of internships, including the Allenwood Prison Camp, Community Health Center, County Commissioners Office, Department of Environmental Resources, Head Start, Historical Society, business and accounting firms, law offices, hospitals, social service agencies, banks and congressional offices.

May Term—The May Term is a four-week voluntary session designed to provide students with experimental and special courses that are not normally available during the Fall, Spring, and Summer Terms. Some courses are offered on campus, while others involve travel. A number offer interdisciplinary credit. Illustrations of the types of courses offered during the May Term are as follows: (a) Study-Travel: Cultural Tours of Germany, Spain, France, Ireland, and the United Kingdom; Archeological Expeditions to the Middle East; Oceanographic Expeditions in Bermuda; Literature of the Sea on location in the Caribbean; Anthropological Expeditions to New Mexico to study tri-cultural communities; Utopian Communities; Photography Workshops in Vermont; Revolutionary and Civil War Sites. (b) On-Campus: Financial Statement Analysis, Silk-screen Printing, Field Geology, History of Astronomy, Field Ornithology, Chemical Analysis, Managing the Small Business, Women in Management, Energy Economics, Public School Curriculum, Writer's Seminar, Modern American Humor, The Norman Kingdom, Practical Logic, Psychology of Group Processes, Ancient Near East Religion, Juvenile Delinquency. Some courses offered during the Fall and Spring Semesters are offered during the May Term as well.

Although participation in the May Term is voluntary, student response has been outstanding with approximately 25 to 30 percent of the student body enrolling. In addition to the courses themselves, attractions include small and informal classes and reduced tuition rates.

Study Abroad—Students have the opportunity to study abroad under the auspices of approved universities and agencies. While study abroad is particularly attractive to students majoring in foreign languages and literatures, this opportunity is open to all students in good academic standing. Mastery of a foreign language is desirable but not required in all programs. A file of opportunities is available in the Library.

NOTE: Lycoming College cannot assume responsibility for the health, safety, or welfare of any student engaged in or en route to or from any off-campus study or activity not under the exclusive jurisdiction of this institution.

Auditors—Any person may audit courses at Lycoming at one-half tuition per course. Laboratory and other special fees must be paid in full. Examinations, papers and other evaluation devices are not required of auditors, but individual arrangements may be made to complete such exercises with the consent of the instructor.

As a special service to the Williamsport and surrounding com-

munities, Lycoming offers any person within commuting distance an opportunity to audit, tuition-free, one course per semester. This program, known as the Lycoming Experimental Audit Program (LEAP), is available during the Fall and Spring Semesters as well as the May and Summer Terms. Participants pay a $15.00 application fee each semester they enroll. Official transcripts are not maintained for LEAP enrollments and credit is not awarded.

Part-Time Students—Any person may take up to two courses during any semester or summer term (one in May Term). Part-time special students pay the $15.00 application fee for the first registration and the part-time tuition rate in effect at the time of each enrollment.

Life-Long Learning—The program consists of short (3-7 weeks) non-credit courses offered throughout the year. Courses have included: How to Listen to a Symphony, Photography, Investment Fundamentals, Preparation of Federal Personal Income Tax Forms, Astronomy Today, The American Revolution, Inflation, Rapid Reading, Greek Folk Dancing and Culture.

STUDENT RECORDS

The policy regarding student educational records is designed to protect the privacy of students against unwarranted intrusions and is consistent with Section 438 of the General Education Provision Act (commonly known as the Family Educational Rights and Privacy Act of 1974, as amended). The details of the college policy on student records and the procedures for gaining access to student records are contained in the current issue of *The Pathfinder,* which is available in the Library and the Office of the Dean of the College.

THE LYCOMING COLLEGE SCHOLAR PROGRAM

The Lycoming College Scholar Program is a special program for special people. It is designed to meet the needs and aspirations of highly motivated students of superior intellectual ability. It offers such people the opportunity to develop their full potential through an innovative and demanding academic course of study. It is a constantly evolving, carefully supervised program which keeps pace with new trends in education. Since it consists of carefully selected and supervised students, it can incorporate ideas and policies far in advance of the institution as a whole.

The present Scholar Program offers a broadened core curriculum so that its students will have the kind of strong background in the liberal arts which educational leaders throughout the nation now recognize as a fundamental necessity in coping with a rapidly changing, increasingly complex world. The program also attempts to help students understand the relationships between the academic disciplines by incorporating special seminars which draw together the specific content of various fields into a coherent whole so that the information can be applied to important issues of the present as well as those of the future.

In addition, the program recognizes the positive aspects of a major, which prepares students to assume specific roles in life by providing participants the opportunity to engage in serious independent study and thought culminating in a major senior project which is presented to their fellow scholars.

In short, the Scholar Program represents a strong commitment on the part of Lycoming College to meet the needs of talented students who themselves have a sincere commitment to high quality scholarship and intellectual development.

Students are admitted to the program through invitation by the Scholar Council, a group which oversees all aspects of the program. The Council consists of four students elected by current scholars and four faculty selected by the Dean of the College. The guidelines governing selection of new scholars are flexible, since exceptional individuals express their talents in different ways. Some do so through traditional indicators of academic excellence such as superior rank in class, high GPA, or superior SAT scores; others through extracurricular activities which demand a high degree of intellectual curiosity, motivation, imagination, creativity, or desire for excellence, and still others through an obvious commitment to the value of intellectual dialogue, independent thought, and the concept of an outstanding liberal arts education.

To remain in the program students must maintain an average of 3.00 or better. Students dropping below this average will be placed on probation until their average is again satisfactory or they are asked to leave the program. To graduate as a Scholar, students must have at least a 3.25 average for all courses taken to meet the curricular requirements of the Scholar Program and all courses in the major.

To graduate as a Scholar, students must take the First Year Scholar Seminar during their first semester in the Program. In addition, the following core requirements must be completed.

A. Writing. Scholars must display above average writing skills by the end of the sophomore year, as certified by the English Department and the Scholar Council. This requirement may be met by obtaining a 570 on the CLEP General Examination in English or by a grade of "B" in English 2. Students not meeting the requirement in either of these ways by the end of the freshman year will be asked to do extra work until this competency is reached.

B. Foreign Language. Scholars must demonstrate the competency of students who successfully complete the second semester of an intermediate level course, or one numbered higher, in a foreign language, or by demonstrating an equivalent proficiency in an exam designated by the Department of Foreign Languages.

C. History. Scholars must complete History 10, 11 (Europe 1500-present).

D. Physical Education. Scholars must satisfy the same physical education requirements stipulated by the College for all students. Specifically, Scholars must demonstrate competence in swimming and earn one year of credit in Physical Education unless exempted for medical reasons.

E. Scholars must also complete 10 courses and four Scholar Seminars in either of two tracks in each of the four divisions of study described below. In each track chosen, students will select no less than two courses (three in division D) for a total of nine plus one additional which may be taken in any of the four selected tracks. After work in a given track is completed, students will take a Scholar Seminar specifically designed for that track. (Students may petition the Scholar Council if they wish to substitute a course or courses in any track).

F. A Senior Project must be completed based on some aspects of the major. Normally this project will be done as either an independent or honors study sponsored by an instructor from the major field and a faculty member of the Council.

G. Scholars must complete a major and 32 units, exclusive of the Scholar Seminars.

THE FOUR DIVISIONS

Division A Studies in Society

Using a variety of methodologies, this division will study the interrelationships among the historic, economic, political, sociological and other cultural factors that contribute to an understanding of people and their institutions in a social context.

Track A1. The Third World

This track will concentrate on the "Third" or developing world. Perhaps as many as two-thirds of the world's population live in lesser developed nations. Students selecting this track must complete at least one of the following: Economics 45, Political Science 38, Sociology/Anthropology 16. And they must complete another of those courses or one from: History 29, Sociology/Anthropology 22; Religion 23, 24.

Track A2. The American Society

Courses in this track will primarily concern themselves with American institutions and values as seen from historical and contemporary perspectives. Time will be spent looking at the structure of American society and its origins, problems and prospects. Students selecting this track must complete at least one of the following: American Studies 10; Sociology/Anthropology 32; Political Science 32, 47; Economics 31, 32. And they must complete another of those courses or one from: Sociology/Anthropology 34; Political Science 35; Economics 24; History 27, 43; Mass Communications 10.

Division B Philosophy and Religion

In this division, the student is invited to explore some of those beliefs and ideas which constitute the foundations of the human conceptual context.

Track B1. The Western Philosophical Tradition

The primary object of Track B1 is to provide an understanding and

appreciation of the fundamental philosophical foundations of the Western intellectual tradition. Students selecting this track must complete at least one of the following: Philosophy 21, 22, 23, or 24. And they must complete another of those courses or one from: Religion 33; History 20, 41.

Track B2. Perspectives on Religion

The courses in Track B2 examine religious belief from the several perspectives provided by different disciplines and traditions, with the primary object of arriving at a thoughtful, integrated understanding of the nature of religion and its relations to other human concerns. Students selecting this track must complete at least one of the following: Religion 22, 23, 24, 25, 30, 33. And they must complete another of those courses or one from: Philosophy 32; Sociology/Anthropology 33, 36.

Division C Literature and the Fine Arts

Many artists hold that fiction frequently contains more truth of the "whole" person and society than do sermons and the more "data based" disciplines; others see art as simply an amusement. Between these extremes any number of views strive for attention. Using literature as a base, this division will center on the nature and value of art for the individual and society. It will do this using the perspectives and methodologies of the various arts from "academic" and "creative" approaches.

Track C1. Art in the Twentieth Century

The more "academic" track, this approach will look at art in the twentieth century in a trans-disciplinary manner to see the ways various disciplines react and help create the visions and images by which society and the individual live. Students selecting this track must complete at least one of the following: English 17, 31, 32, 33, 48; Foreign Languages 25; French 48, 49; German 42, 47; Spanish 48, 49; Theatre 35. And they must complete another of those courses or one from: Art 31; Music 46.

Track C2. The Making of Art

From a "creative" approach, students will compose their own visions and thereby come to understand from the "inside out" the nature of the making process. This track will also study some of the art being produced by recognized masters in the fields. Students selecting this track must complete at least one of the following: English 35, 36; Theatre 15. And they must complete another of those courses or one from: Art 15, 20, 25, 27; Music 28, 30, 31, 32; Theatre 18, 26, 28.

Division D Quantitative Studies

A primary objective of modern science is the quantitative description of observed phenomena. Such descriptions are often called mathematical models because the descriptions are abstract models of reality, and the language used in the description is mathematics.

Track D1. Continuous Models

Observed phenomena in the natural sciences usually require continuous mathematical models because most quantities which are measured vary continuously with time. Consequently, differential calculus provides a wealth of tools for working these models. Students selecting this track must complete Mathematics 9, or 18; one of the following: Astronomy/Physics 15, 25; Biology 21, 22, 24, 44: Chemistry 11. And they must complete another of those courses or one from: Astronomy/Physics 16, 26, 28, 29, 44, 45, 46; Chemistry 10, 30; Economics 30, 31; Mathematics 19, 20, 21; Philosophy 33.

Track D2. Discrete Models

Observed phenomena in the social sciences usually require discrete mathematical models because most quantities which are measured are analyzed as functions of other social variables (rather than time) which assume only finitely many values. Here the methods of finite mathematics, statistics, and computer science provide the best tools. Students selecting this track must complete Mathematics 13; one of the following: Biology 22, 24; Chemistry 32; Psychology 20, 21, 33, 34. And they must complete another of those courses or one from: Accounting 31, 40; Business 23; Mathematics 12, 15, 32, 33; Psychology 10; Philosophy 33.

CHAPTER V

STUDENT SERVICES

ADMINISTRATION

Designed to respond to a diversity of student development needs, the program of student services at Lycoming is administered by the Office of the Dean of Student Services. The four staff members, three of whom reside on campus, are each assigned the following specific responsibilities:

—Career Counseling and Placement;
—Residence Life;
—Student Activities, Student Union, Student Government, IFC and Panhellenic Advisor;
—Religious Life, Health Service, Study Skills Program, Reading Improvement Course.

All members of the staff are available for counseling and advising individual students.

PERSONAL COUNSELING

All members of the staff of the Office of Student Services are qualified and available to provide non-therapeutic assistance to students with adjustment problems. A psychiatrist serves as a consultant to the staff and is available for evaluation of individual students who may be in need of professional services. Continuing therapy is available through referral to public agencies and private clinicians in the Williamsport community. Financial arrangements for these referral services are made directly by the student with the agency and/or individual clinician involved.

HEALTH SERVICES

Normal medical treatment by the Health Service staff at the College is provided without cost to the student. During the Fall and Spring Semesters the College maintains in Rich Hall an out-patient service which is staffed with a registered nurse five days a week from 9:00 a.m. to 5:00 p.m. The College Physician is available from 11:00 a.m. to 12:00 noon, Monday through Friday. At other times emergency care is available at the Emergency Rooms of The Williamsport and Divine Providence Hospitals, located a short distance from the campus. The College pays the emergency room charge and the emergency room physician's fee *for illness* when the Health Service is closed.

The following medical services involve charges which are paid by the student: emergency room and emergency room physician's charges (except as indicated above), special medications, X-rays, surgery, care for major accidents, immunizations, examinations for glasses, physician's visits other than in the Health Service, referrals for treat-

ment by specialists, special nursing services, and special services.

Entering students must provide basic health information to the College between the time of admission and the beginning of classes of the term to which they are admitted. This information is secured through college participation in the computerized health information service provided by Medical Datamation, Inc. New students complete the DASH Medical Information Questionnaire that is mailed to students shortly after they have confirmed their admission to Lycoming. The completed form is sent by the student to Medical Datamation together with a check for $10. Both the student and the College receive reports based on the questionnaire responses. The student report consists of a Medical Database Report, a Health Risk Index, as many health information brochures as requested, and a Personal Quality of Life Report. Information provided by the student is confidential and is available only to qualified Health Service and Student Services personnel.

STUDY IMPROVEMENT SERVICES

Skills Seminars—The seminars, consisting of three one-hour sessions on scheduling of time, test-taking, and study methods, are scheduled on demand for six to ten students.

Reading Course—Designed to improve reading speed and comprehension, this three-week course is offered at various times during the academic year for a nominal fee of $15.

CAREER DEVELOPMENT SERVICES

The Career Development Center provides services designed to help students recognize their interests and skills enabling them to reach well-informed decisions regarding academic major and career/life goals. The Center also provides information on preparation for specific careers, employment outlooks and career trends. Services offered by the Career Development Center include:

—individual counseling
—career planning seminars in values clarification, skill assessment, and decision-making
—2500 volume career library
—relaxation workshops and assertiveness training
—SHARE (Students Having A Real Experience), a program in which students observe and work with a professional in the field
—placement services to aid seniors in implementing their career plans
—assistance to students in securing internships, summer employment and part-time employment
—speaker's program which brings professionals from a variety of careers to campus seminars
—video-cassette programs relating to job skills and career information
—microfiche copies of graduate and professional school catalogs for the United States and abroad.

RESIDENCE AND RESIDENCE HALLS

Students who are single and who do not reside at home are required to live in residence halls and eat in the dining room. All new resident students are forwarded a room agreement form to sign following confirmation of their admission to Lycoming. This agreement is renewed each Spring. Exceptions to the residence policy may be granted to those students who wish to live with relatives, and those over 23 years of age who have established non-resident status; requests for such exemptions must be submitted to the Assistant Dean of Student Services for Residence Life before the first day of the term to which the student has been admitted.

Resident students assume responsibility for their rooms and furnishings. The College reserves the right to enter and inspect any room for reasons of damage, health, or safety and to search any room when there is reason to believe a violation of college rules or the law is occurring or has occurred. Charges are assessed for damage to rooms, doors, furniture, and common areas as explained in Chapter III of this catalog.

Residence Halls are not available for occupancy during the vacation periods. Quiet hours for study purposes, which are established by residence hall councils or the Office of Student Services, are published in the *Residence Halls Handbook* and posted on bulletin boards.

Room visitation by members of the opposite sex is permitted in the halls under conditions established by the College in cooperation with the various residence hall councils, which share responsibility for developing and monitoring regulations and which are organized each Fall Semester before visitation schedules are established.

STANDARDS OF CONDUCT

All students are expected to accept responsibilities required of adults in a free, democratic society. The rights of every member of the community are protected from encroachment by established rules and regulations. Although the acceptance and observance of the standards of behavior expected by the College are individual responsiblities, they are a group responsibility as well. It is incumbent on all students to influence their peers to conduct themselves honorably for the collective good. Acceptance of membership in the Lycoming community assumes a willingness to accept these responsibilities and implicit restrictions. Students who are unable to demonstrate that they have accepted these responsibilities or who are antagonistic to the spirit and general purpose of the College or who fail to abide by established regulations may be dismissed at any time and may be denied the privilege of attending subsequent terms. Further, following the conclusion of any term or semester, the College may deny a student the privilege of attending any subsequent term or semester when the administration deems this to be in the best interest of the College.

Lycoming College does not approve or support the use or misuse of alcoholic beverages. Its historic relationship to The United Methodist Church and its interpretation of its mission as an institution of higher education has traditionally supported and encouraged students who abstain from the use of alcoholic beverages.

Students who enter Lycoming are expected to honor the legal restrictions on alcohol use imposed by the Commonwealth of Pennsylvania. The observance of the law is the individual responsibility of each student, and failure to obey the law may subject the student to prosecution by civil authorities, either on or off the campus.

Students are also expected to be aware of the College's attitude toward the use and misuse of alcohol and to acknowledge the College's right to its position. The College will not tolerate any public use of alcohol, and officials of the College will prescribe penalties for the public or private misuse of alcohol. These penalties will be applied in a consistent manner.

The College also accepts responsibility for providing students with reliable information regarding alcoholic beverages and the social and medical implications of its use. The purpose of the Program on Beverage Education is to enable students to make a reasoned decision between the personal options of use or non-use of alcoholic beverages and to assist students who choose to abstain to be comfortable with that decision in a larger society where pressures are intense to use alcoholic beverages.

The College will make every effort to create and maintain a community in which individual choice is coupled with responsible behavior and respect for the rights of others.

All students are provided a copy of the *Guidepost* when they are admitted to Lycoming, and resident students are provided a copy of the *Residence Halls Handbook*. These documents contain statements of official college policies, rules, and regulations, all of which are part of the

contractual agreement students enter into when they register at Lycoming.

RELIGIOUS LIFE

Opportunities for spiritual growth are provided through voluntary participation in the religious life of the College and the community of Williamsport. The religious life program is intended to encourage all students to sustain their own particular religious commitment through these opportunities. A United Campus Ministry involving chaplains to United Methodist, Episcopal, Lutheran, Baptist, Presbyterian and Roman Catholic students and cooperating churches in the community provide the following services:

—worship program;
—service opportunities;
—pastoral counseling;
—local church relationships;
—religious activities.

Additional chaplains will be appointed as arrangements to expand the ministry to other faiths and denominations are completed.

Regular Protestant and Roman Catholic worship services are held on Sundays in the College Chapel, and several ecumenical worship opportunities are planned for special seasons of the church year, including Christmas, Easter, and Passover.

The United Campus Ministry Center, containing the St. John Neumann Chapel, a social and meeting area, Chapel Office and Sacristy, a lounge and two offices is located on the basement floor of Clarke Chapel. The Chaplains' office is located in the United Campus Ministry Center.

ORIENTATION OF NEW STUDENTS

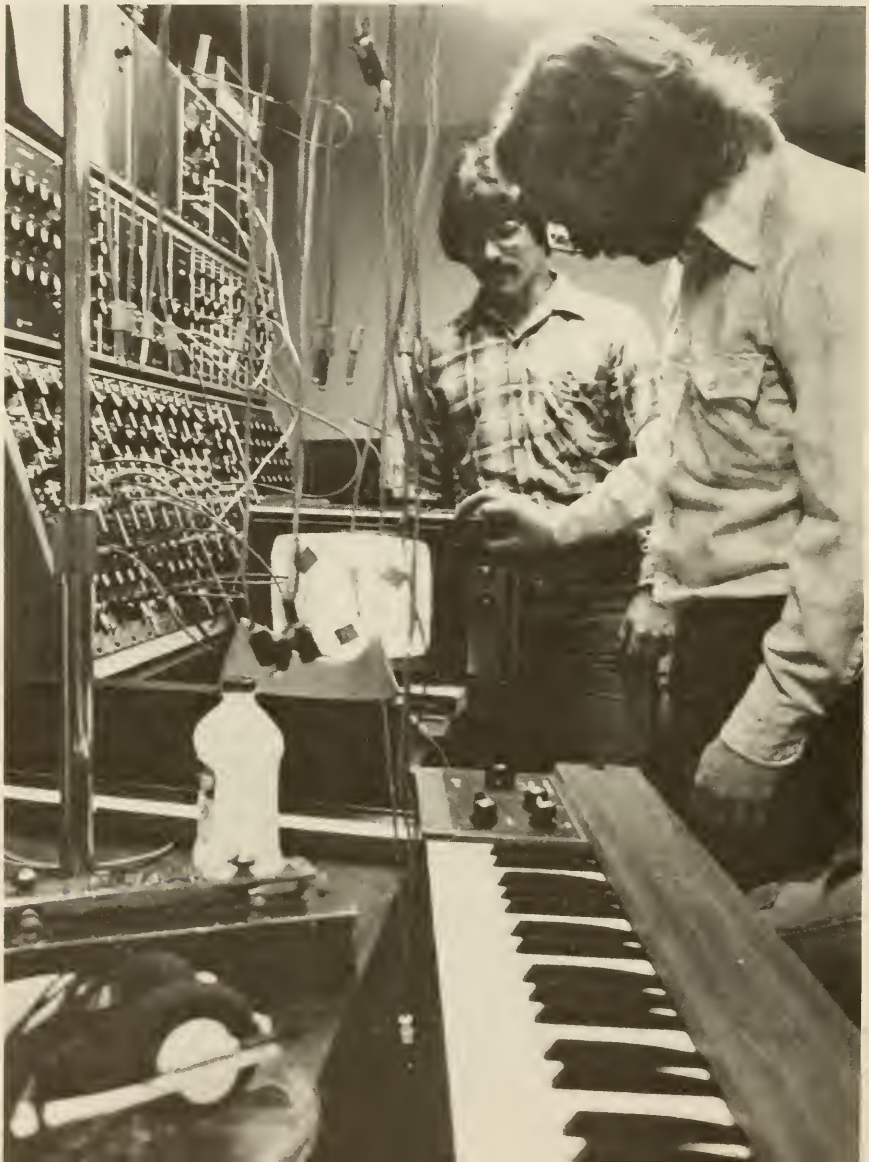
The purpose of the orientation program is to insure that new students begin their Lycoming experience under the most favorable circumstances and to provide opportunities for new students and their parents to become more fully informed about the College. Four sessions of two and one-half days each are organized each summer and attendance by all new students and at least one parent is required. During the orientation program, parents and students participate in the following activities:

—Briefing sessions on the academic and co-curricular programs;
—Academic advisement and registration for Fall Semester classes;
—Placement testing in swimming, mathematics, and English;
—Purchase of textboks.

Information pertaining to orientation is mailed to students after they have confirmed their admission to Lycoming.

STUDENT ACTIVITIES

A full program of cultural, professional, athletic, and social activities is an integral part of college life at Lycoming. Students will find a diversity of outlets for their talents, interests, and leadership abilities through departmental clubs, intercollegiate and intramural athletics, fraternities and sororities, clubs, student publications, musical organizations, theatre, radio station, honorary societies, student government, and outdoor recreation. Information about these activities is provided in the *Guidepost* and other publications of the College and is available through the Office of the Dean of Student Services.



CHAPTER VI
THE CURRICULUM

Numbers 1-9 Elementary courses in departments where such courses are not counted as part of the student's major.
Numbers 10-19 Freshman level Courses
Numbers 20-29 Sophomore level Courses
Numbers 30-39 Junior level Courses
Numbers 40-49 Senior level Courses
Numbers 50-59 Non-catalog Courses (offered on a limited basis)
Numbers 60-69 Applied Music
Numbers 70-79 Internships
Numbers 80-89 Independent Study
Numbers 90-99 Independent Study for Departmental Honors

Courses not in sequence are listed separately, as:

Introduction to Art	Art 10
Drawing 1	Art 11

Courses which imply a sequence are indicated with a dash between, meaning that the first semester must be taken prior to the second, as:

Intermediate French	French 10-11

All students *without regard to sex* have the right of access to all courses.

ACCOUNTING

Professor: Richmond (Chairman)
Assistant Professor: Kuhns

The purpose of the accounting major is to help prepare the student for a career within the accounting profession, whether public, private or governmental, through a curriculum stressing pre-professional education.

A major consists of Accounting 10, 20-21, 30, 40, 41, 45, Math 13, 15, and one and one-half units to be selected from Accounting 25, 26, 31, 42, 44, 46, 47, and 48 or Internship after consultation with and approval of the department in accordance with the student's professional interests and objectives. *Business 10 may be substituted for Accounting 10 if a student changes majors.*

Students seeking entry into the public accounting field are advised to investigate the professional requirements for certification in the state in which they intend to practice so that they may meet all educational requirements prior to graduation. All majors are advised to enroll in Economics 10 and 11, Business 35, 36, and 38, and one of the following: Business 33, Economics 20 or 37.

10 ELEMENTARY ACCOUNTING THEORY

An introductory course in recording, classifying, summarizing, and interpreting the basic business transaction. Problems of classification and interpretation of accounts and preparation of financial statements are studied. *Prerequisite: Sophomore standing or consent of instructor.*

20-21 INTERMEDIATE ACCOUNTING THEORY

An intensive study of accounting statements and analytical procedures with

emphasis upon corporate accounts. Price level adjustments, partnerships, joint ventures, installments and consignment sales, branch and home office accounting, and the statement of affairs are among topics studied. *Prerequisite: Accounting 10.*

25 FINANCIAL STATEMENT ANALYSIS

Deals with the analysis of financial statements as an aid to decision making. The theme of the course is understanding the financial data which are analyzed as well as the methods by which they are analyzed and interpreted. This course should prove of value to all who need a thorough understanding of the uses to which financial statements are put as well as to those who must know how to use them intelligently and effectively. This includes accountants, security analysts, lending officers, credit analysts, managers and all others who make decisions on the basis of financial data. *Prerequisite: Accounting 10 or Business 10. May Term.*

26 GOVERNMENTAL AND FUND ACCOUNTING

This course is designed to introduce accounting for not-for-profit organizations. Municipal accounting, reporting and auditing, and federal and institutional accounting and reporting are studied. *Prerequisite: Accounting 10 or Business 10. One-half unit of credit.*

30-31 COST AND BUDGETARY ACCOUNTING THEORY

Methods of accounting for material, labor, and factory overhead expenses consumed in manufacturing using job order, process and standard costing. Application of cost accounting and budgeting theory to decision making in the areas of make or buy, expansion of production and sales, and accounting for control are dealt with. *Prerequisite: Accounting 20 or consent of instructor.*

40 AUDITING THEORY

A study of the science or art of verifying, analyzing, and interpreting accounts and reports. The goal of the course is to emphasize concepts which will enable students to understand the philosophy and environment of auditing. Special attention is given to the public accounting profession, studying auditing standards, professional ethics, the legal liability inherent in the attest function, the study and evaluation of internal control, the nature of evidence, the growing use of statistical sampling, the impact of electronic data processing, and the basic approach to planning an audit. Finally, various audit reports expressing independent expert opinions on the fairness of financial statements are studied. *Prerequisite: Accounting 21, and Mathematics 13 and 15.*

41 FEDERAL INCOME TAX ACCOUNTING AND PLANNING

Analysis of the provisions of the Internal Revenue Code relating to income, deductions, inventories, and accounting methods. Practical problems involving determination of income and deductions, capital gains and losses, computation and payment of taxes through withholding at the source and through declaration are considered. Planning transactions so that a minimum amount of tax will result is emphasized. *Prerequisite: Accounting 10 or consent of instructor.*

42 FEDERAL INCOME TAX ADMINISTRATION AND PLANNING

An analysis of the provisions of the Internal Revenue Code relating to partnerships, estates, trusts, and corporations. An extensive series of problems is considered and effective tax planning is emphasized. *Prerequisite: Accounting 41.*

44 CONTROLLERSHIP

Control process in the organization. General systems theory, financial control systems, centralization-decentralization, performance measurement and evaluation, forecasts and budgets and marketing, production and finance models for control purposes. *Prerequisite: Accounting 31 or consent of instructor. Alternate years.*

45 AUDITING PRACTICE

An audit project is presented, solved and the auditor's report is written. THIS COURSE IS LIMITED TO STUDENTS WHO HAVE EITHER COMPLETED OR ARE ENROLLED IN ACCOUNTING 40. *One-half unit of credit.*

46 SEMINAR ON APB OPINIONS AND FASB STANDARDS

A seminar course for accounting majors with library assignments to gain a workable understanding of the highly technical opinions of the Accounting Principles Board and standards of the Financial Accounting Standards Board. One term paper. Possible trip to New York City to attend a public hearing of the Financial Accounting Standards Board. *Prerequisite: Accounting 10. May Term.*

47 ADVANCED ACCOUNTING

Certain areas of advanced accounting theory, including business combinations, consolidated financial statements and accounting and reporting for the Securities and Exchange Commission are covered. *Prerequisite: Accounting 21. One-half unit of credit.*

48 CONTEMPORARY PROBLEMS FOR CPA CANDIDATES

Problems from the Accounting Practice sections of past C.P.A. examinations which require a thorough knowledge of the core courses in their solution are assigned. The course is intended to meet the needs of those interested in public accounting and preparation for the Certified Public Accountants Examination. *Prerequisite: Accounting 30 or consent of instructor. One-half unit of credit.*

70-79 INTERNSHIP (See Index)

Interns in accounting typically work off-campus under the supervision of a public or private accountant.

80-89 INDEPENDENT STUDY (See Index)

Typical examples of recent studies in accounting are: computer program to generate financial statements, educational core for public accountants, inventory control and church taxation.

90-99 INDEPENDENT STUDY FOR DEPARTMENTAL HONORS (See Index)

ACCOUNTING—MATHEMATICS

Professor: Richmond (Coordinator)

The Accounting-Mathematics Interdisciplinary Major is designed to offer, within a liberal arts framework, courses which will aid in constructing mathematical models for business decision making. Students obtain a substantial background in mathematics and a working knowledge in accounting.

Majors will be only four courses short of a math major and three courses short of an accounting major. Required accounting courses are: Accounting 10, 20, 21, 30, 31. In Mathematics they are: Mathematics 18, 19, 20, and 37 plus two courses from Mathematics 21, 31, 32, and 33. Business courses required are: Business 35 and 36. Recommended courses include: Mathematics 13 and 15; Business 23, 34, 38, and 39; Economics 10 and 11; Psychology 15 and 24; and Sociology 10.

AMERICAN STUDIES

Associate Professor: Piper (Coordinator)

The American Studies major offers a comprehensive program in American civilization which introduces students to the complexities underlying the development of America and its contemporary life. The thirteen major courses include:

FOUR-CORE COURSES—The primary integrating units of the major, these team-taught courses will teach you how to think of ideas from different points of view and how to correlate information and methods from various disciplines:

America As a Civilization (First semester of major study)
American Studies—Research and Methodology (Second semester)
American Tradition in the Arts and Literature (Third semester)
Internship or Independent Study (Junior and/or senior year)

CONCENTRATION AREAS—Six courses in one option and three in the other are needed. Six primary Concentration Option courses in American Arts or American Society build around the insights gained in the Core Courses. They focus particular attention on areas most germane to academic and vocational interests. The three additional courses from the other option give further breadth to understanding of America. Students also will be encouraged to take elective courses relating to other cultures.

American Arts Concentration Option

American Art	—Art 24
American Art of the 20th Century	—Art 32
19th Century American Literature	—English 16
20th Century American Literature	—English 17
American Music	—Music 51
American Theatre	—Theatre 51

American Society Concentration Option

U.S. Social and Intellectual History to 1877	—History 42
U.S. Social and Intellectual History since 1877	—History 43
The American Constitutional System	—Political Science 30
The American Political Tradition	—Political Science 47
American Economic Development	—Economics 51
Racial and Cultural Minorities	—Sociology 34

Students should design their American Studies major in consultation with the program co-ordinator or a member of the American Studies committee.

10 AMERICA AS A CIVILIZATION

An analysis of the historical, socio-cultural, economic, and political perspectives on American civilization with special attention to the interrelationships between these various orientations.

11 AMERICAN STUDIES—RESEARCH AND METHODOLOGY

The study and application of various research methods, including new trends in historical study, quantitative analysis, cross-cultural studies and on-site inspection.

12 AMERICAN TRADITION IN THE ARTS AND LITERATURE

The relationships of the arts and literature to the various historical periods of American life.

70-79 or 80-89 INTERNSHIP OR INDEPENDENT STUDY (See Index)

An opportunity to relate the learning in the Core Courses and the Concentration Areas to an actual supervised off-campus learning situation or independent study project.

90-99 INDEPENDENT STUDY FOR HONORS (See Index)

ART

Associate Professor: Shipley (Chairman)
Assistant Professor: Bogle
Instructor: Lesko
Part-Time Instructor: T. Wild

A major consists of a balanced program of history of art and studio courses. In addition to the core courses of the major program (Art 11, 15, or 18, 20, 21, 22, 23, 30, and 46), the student will elect two advanced courses in art history. Art 25 and 35, or Art 28 and 38 may be substituted for Art 20 and 30. Majors will be required to present their better work in a one-person show during their senior year.

10 INTRODUCTION TO ART

Course includes basic studio work in two and three dimensions as well as lecture and slide presentations. The goal of the course is to equip the student with the skills and background necessary to approach art in an open and receptive manner.

11 DRAWING I

Study of the human figure with gesture and proportion stressed. Student is made familiar with different drawing techniques and media. Some drawing from nature. Offered in alternate semesters with Drawing II and III.

12 COLOR THEORY

A study of the physical and emotional aspects of color. Emphasis will be placed on the study of color as an aesthetic agent for the artist. The color theories of Johannes Itten will form the base for this course with some study of the theories of Albert Munsell, Faber Berren, and Wilhelm Ostwald. *May Term only.*

14 DESIGN FOR ELEMENTARY TEACHERS

A course designed to give students the opportunity to explore, in their own creative style, ideas, techniques and methods for involving children in expressive activities through the use of a wide range of media in the making of prints, puppets, pictorial and design projects, simple modeling, mosaics, plaster casting, weaving and stitchery projects, simple jewelry and gift crafts, lettering projects, mobiles, stabiles, and other three-dimensional designs created from scrap materials.

15 TWO-DIMENSIONAL DESIGN

The basic fundamentals found in the two-dimensional arts: line, shape, form, space, color, and composition are taught in relationship to the other two-dimensional arts. Perceptual theories and their relationships to what and why we see what we see in art are discussed with each problem.

18 FIGURE MODELING

Understanding the figure will be approached through learning the basic structures and proportions of the figure. The course is conceived as a three-dimensional drawing class. At least one figure per student will be cast.

19 CERAMICS I

Emphasis placed on pottery design as it relates to function of vessels and the design parameters imposed by the characteristics of clay. The techniques of ceramics are taught to encourage expression rather than to dispense merely a technical body of information.

20 PAINTING I

An introduction of painting techniques and materials. Coordination of color, value, and design within the painting is taught. Some painting from the figure. No limitations as to painting media, subject matter or style. *Prerequisite: Art 15 or consent of instructor.*

21 DRAWING II

Continued study of the human figure. Emphasis is placed on realism and figure-ground coordination with the use of value and design. *Prerequisite: Art 11.*

22 HISTORY OF ART I

A survey of Western architecture, sculpture, and painting. Emphasis is on the interrelation of form and content and on the relatedness of the visual arts to their cultural environment: Near East, Egypt, Greece, Rome, and Medieval Europe.

23 HISTORY OF ART II

A survey of Western architecture, sculpture, and painting. Emphasis is on the interrelation of form and content and on the relatedness of the visual arts to their cultural environment: Renaissance to Modern.

24 AMERICAN ART

The development of the arts in America from Colonial times to the Armory Show with emphasis on the 18th and 19th centuries: Copley, Greenough, Bulfinch, Homer, Eakins, Richardson, and Sloan.

25 SCULPTURE I

An introduction to the techniques, materials, and ideas of sculpture. Clay, plaster, wax, wood, and other materials will be used. The course will be concerned with ideas about sculpture as expression, and with giving material form to ideas.

27 INTRODUCTION TO PHOTOGRAPHY

Objectives of the course are to develop technical skills in the use of photographic equipment (cameras, films, darkroom, print maker) and to develop sensitivity in the areas of composition, form, light, picture quality, etc. Each student must own or have access to a 35mm roll film camera.

28 PRINTMAKING I

Practice of the techniques of silk-screen, wood-block, and linoleum-block printing. *Prerequisite: Art 11 or 15.*

29 CERAMICS II

Continuation of Ceramics I. Emphasis on use of the wheel and technical aspects such as glaze making and kiln firing. *Prerequisite: Art 19.*

30 PAINTING II

Emphasis is placed on individual style and technique. Artists and movements in art are studied. No limitations as to painting media, subject matter, or style. *Prerequisite: Art 20.*

31 MODERN EUROPEAN ART

Stylistic developments in Europe from 1880 to the present, including Cubism, Fauvism, Expressionism, Dada, and Surrealism. Picasso, Matisse, Kandinsky and Mondrian are among the major artists studied.

32 AMERICAN ART OF THE 20TH CENTURY

Painting, sculpture, and architecture in the United States from 1900 to the present with emphasis on developments of the fifties and sixties: an inquiry into the meaning and historical roots of contemporary art.

33 19TH CENTURY ART

Emphasis on painting, sculpture and architecture of Western Europe from 1760 to 1900, including the work of late 18th century artists David and Goya and 19th century developments from Romanticism to Post-Impressionism.

34 ART OF THE RENAISSANCE

Painting, sculpture, and architecture in Italy and the Northern countries, from the late 13th century through the early 16th century. Artists include Giotto, Donatello, Alberti, Leonardo da Vinci, Michelangelo, Van Eyck, Dürer and Brüegel.

35 SCULPTURE II

A continuation of Art 25 or Art 16, with emphasis on independent projects and more complex technique. Casting of bronze and aluminum sculpture will be done in the school foundry. *Prerequisite: Art 16 or 25.*

37 PHOTOGRAPHY II

To extend the skills developed in Photography I by continued growth in technical expertise, presentation, conceptual ability, and aesthetic sensibility. Emphasis is placed upon term essay in area of student's interest and presented in booklet format. *Prerequisite: Art 27.*

38 PRINTMAKING II

Further exploration of silk-screen printing techniques, practice of the techniques of engraving, drypoint, etching, and aquatint.

40 PAINTING III

Professional quality is stressed. There is some experimentation with new painting techniques and styles.

41 DRAWING III

Continued study of human figure, individual style and professional control of drawing techniques and media are now emphasized.

46 STUDIO RESEARCH

Independent research in an elective studio area, conducted under the supervision of the appropriate faculty member, includes creation of work which may be incorporated in a one-person senior exhibition. Student works in private studio assigned by the department.

70-79 INTERNSHIP (See Index)

Commercial Design, Interior Design, and photography programs in local businesses and Museum work at the Historical Museum.

80-89 INDEPENDENT STUDY (See Index)

Recent studies in anatomy. Aspects of the Art Noveau, Lithography, Photography, Pottery, Problems in Illustration, and watercolor.

90-99 INDEPENDENT STUDY FOR DEPARTMENTAL HONORS (See Index)

ASTRONOMY/PHYSICS

Professor: Fineman
Associate Professor: W. Smith
Assistant Professor: Erickson (Chairman)

The department offers two majors. The major in astronomy is specifically designed to train students in the field of planetarium education. The major in physics prepares students for graduate work in physics or astronomy, for the cooperative program in engineering, or for state certification as secondary school teachers of physics. Juniors and seniors in both majors are required to attend and participate in the weekly departmental colloquia.

A number of courses in this department are offered on two levels which differ in the degree of mathematical rigor and sophistication needed. All such courses have dual catalog numbers, with the letters B (basic) and A (advanced) appearing after the course names to indicate the level. Both the B and A level of a course meet together for the same three hours of lecture each week, while the A level meets for one additional hour each week of more advanced mathematical development of the material. This system is designated as the "3+1" method. No student may earn credit for both levels of a course.

The major in astronomy requires AsPh 11, 12, either 15 or 25, either 16 or 26, 30, either 34 or 44, either 35 or 45, and either 36 or 46; Mathematics 18 and 19 (Calculus I and II); and one year of chemistry. One or more of the following are recommended: AsPh 3, 4, 5, 27, 33, or 42; and Art 27 (Photography I).

The major in physics requires AsPh 11, either 12 or 13, 25, 26, 28, 29, and at least two courses chosen from 27, 33, 42, 44, 45, 46 and 48; Mathematics 18 and 19 (Calculus I and II); and one year of chemistry. With departmental consent, advanced courses may be substituted for AsPh 11, 12, or 13. In addition, Mathematics 20 and 21 (Multivariate Calculus and Differential Equations) are required for graduate school preparation and the cooperative program in engineering. It is also recommended that student planning on graduate study in physics or astronomy take one year of a foreign language and Mathematics 13 and 15 (Introduction to Statistics and Computer Science). With departmental consent, advanced courses may be substituted for Astronomy and Physics 11 and 12.

3 OBSERVATIONAL ASTRONOMY

A methods course providing the opportunity to make a variety of astronomical observations, both visually and photographically, with and without telescopes. The planetarium is used to familiarize the student with the sky at various times during the year and from different locations on earth.

4 FIELD GEOLOGY

A methods course introducing the field techniques needed to study the geology of an area. *May term.*

5 HISTORY OF ASTRONOMY

A comprehensive view of the evolution of astronomical thought from ancient Greece to the present, emphasizing the impact that astronomical discoveries and the conquest of space have had on Western culture. *Four hours of lecture per week.*

11 PRINCIPLES OF ASTRONOMY

A summary of current concepts of the universe, from the solar system to distant galaxies. Describes the techniques and instruments used in astronomical research. Presents not only what is reasonably well known about the universe, but also considers some of the major unsolved problems. *Three hours of lecture, one hour of discussion and planetarium demonstration, and two hours of laboratory per week. Fall Semester.*

12 ENVIRONMENTAL AND EARTH SCIENCE

A study of the physical processes that continually affect the planet Earth, shaping our environment. Describes how past events and lifeforms can be reconstructed from preserved evidence to reveal the history of our planet from its origin to the present. Emphasizes the ways in which geology, meteorology, and oceanography interrelate with man and the environment. *Three hours of lecture, one hour of discussion and demonstration, and two hours of laboratory per week. Spring Semester.*

13 METEOROLOGY

The general properties of the atmosphere and their measurements will be discussed in terms of basic physical and chemical laws. Two basic themes will guide the approach, i.e., the atmosphere behaves like a giant heat engine and weather patterns exist from a micro-to-macroscale. *Three lectures and one two hour laboratory per week. May Term only. Alternate years.*

15 CONCEPTS OF PHYSICS B

25 CONCEPTS OF PHYSICS A

Rather than presenting an encyclopedia view of classical physics, this course emphasizes the development of concepts and principles to be applied in all further courses. The fundamental quantities and laws of mechanics, electricity and magnetism, and thermodynamics will be presented and illustrated with numerous problems. *Lectures presented by the "3 + 1" method; also one hour of recitation and three hours of laboratory per week.* Credit may not be earned for both Astronomy and Physics 15 and 25. *Prerequisite for 15: Mathematics 17 (Precalculus). Corequisite for 25: Mathematics 18 (Calculus I). Fall Semester.*

16 WAVES AND PARTICLES B

26 WAVES AND PARTICLES A

Description of waves, the wave equation, electromagnetic waves. Reflection, refraction, interference, and diffraction. The constituents of matter and radiation, the interaction of matter and radiation, wave-particle duality. The Bohr atom, atomic structure, and atomic spectra. Nuclear structure, radioactive decay, and nuclear reactions. *Lectures presented by the "3 + 1" method; also one hour of recitation and three hours of laboratory per week.* Credit may not be earned for both Astronomy and Physics 16 and 26. *Prerequisite for Astronomy and Physics 16: 15 or 25 (Concepts of Physics B or A). Prerequisite for Astronomy and Physics 26: 25 (Concepts of Physics A). Corequisite for Astronomy and Physics 26: Mathematics 19 (Calculus II). Spring Semester.*

27 ELECTRONICS

D.C. and A.C. circuit and network theory, active devices such as transistors, operational amplifiers, integrated circuits and introduction to digital electronics will be covered. *Three lectures and two 2-hour laboratory sessions per week. Prerequisites: Astronomy/Physics 15 or 25 and Mathematics 9 or 18, or consent of instructor. Alternate years.*

28 MECHANICS

Kinematics and dynamics of single particles and systems of particles. Rigid bodies. Introduction to the mechanics of continuous media. Moving reference frames. Lagrangian mechanics. *Four hours of lecture and three hours of laboratory per week. Prerequisites: Astronomy and Physics 25 (Concepts of Physics A) and Mathematics 19 (Calculus II).*

29 ELECTRICITY AND MAGNETISM

The electromagnetic field, electrical potential, magnetic field, and electric and magnetic properties of matter. Electric circuits. Maxwell's equations. Laboratory includes electronics as well as classical electricity and magnetism. *Four hours of lecture and three hours of laboratory per week. Prerequisite: Astronomy and Physics 26 (Waves and Particles A).*

30 PLANETARIUM TECHNIQUES

A methods course covering major aspects of planetarium programming, operation, and maintenance. Students are required to prepare and present a planetarium show. Upon successfully completing the course, students are eligible to become planetarium assistants. *Two hours of lecture and demonstration and four hours of practical training per week. Prerequisite: Astronomy and Physics 11 (Principles of Astronomy) or consent of the instructor.*

33 OPTICS

Geometrical optics and optical systems; physical optics, interference, Fraunhofer and Fresnel diffraction; and coherence and lasers will be covered. *Three lectures and three hour laboratory per week. Prerequisites: Astronomy/Physics 16 or 26 and Mathematics 9 or 18, or consent of instructor. Alternate years.*

32 ATMOSPHERIC PHYSICS B

42 ATMOSPHERIC PHYSICS A

A survey course on the physics of the upper atmosphere. *Lectures presented by the "3 + 1" method.* Credit may not be earned for both 32 and 42. *Prerequisites for 32: 12 (Environmental and Earth Science) and Astronomy and Physics 16 or 26 (Waves and Particles B or A). Prerequisites for Astronomy and Physics 42: 12 (Environmental and Earth Science) and Astronomy and Physics 26 (Waves and Particles A). Alternate years.*

34 RELATIVITY AND COSMOLOGY B

44 RELATIVITY AND COSMOLOGY A

A detailed presentation of the special theory of relativity, and a short view of the general theory and its classical proofs. Man's concepts of the universe,

with particular attention to alternative modern cosmological models. Discussion of the Cosmological Principle, its rationale, and its implications. *Lectures will be presented by the "3 + 1" method.* Credit may not be earned for both Astronomy and Physics 34 and 44. *Prerequisites for Astronomy and Physics 34: 11 (Principles of Astronomy) and either Astronomy and Physics 15 or 25 (Concepts of Physics B or A), Mathematics 18 (Calculus I). Prerequisites for Astronomy and Physics 44: 11 (Principles of Astronomy) and 25 (Concepts of Physics A).*

35 STELLAR EVOLUTION AND NUCLEOSYNTHESIS B

45 STELLAR EVOLUTION AND NUCLEOSYNTHESIS A

The physical principles governing the internal structure and external appearance of stars. Mechanisms of energy generation and transport within stars. The evolution of stars from initial formation to final stages. The creation of chemical elements by nucleosynthesis. *Lectures presented by the "3 + 1" method.* Credit may not be earned for both Astronomy and Physics 35 and 45. *Prerequisites for Astronomy and Physics 35: 11 (Principles of Astronomy) and either Astronomy and Physics 16 or 26 (Waves and Particles B or A). Corequisite for Astronomy and Physics 35: Mathematics 19 (Calculus II) or consent of the instructor. Prerequisites for Astronomy and Physics 45: 11 (Principles of Astronomy) and 26 (Waves and Particles A). Alternate years.*

36 STELLAR DYNAMICS AND GALACTIC STRUCTURE B

46 STELLAR DYNAMICS AND GALACTIC STRUCTURE A

The motion of objects in gravitational fields. Introduction to the n-body problem. The relation between stellar motions and the galactic potential. The large scale structure of galaxies in general and of the Milky Way Galaxy in particular. *Lectures presented by the "3 + 1" method.* Credit may not be earned for both Astronomy and Physics 36 and 46. *Prerequisites for 36: 11 (Principles of Astronomy) and either 15 or 25 (Concepts of Physics B or A). Corequisite for Astronomy and Physics 36: Mathematics 19 (Calculus II) or consent of instructor. Prerequisites for Astronomy and Physics 46: 11 (Principles of Astronomy) and 25 (Concepts of Physics A). Corequisite for Astronomy and Physics 46: 28 (Mechanics) or consent of instructor. Alternate years.*

48 INTRODUCTION TO QUANTUM MECHANICS

Basic concepts and formulation of quantum theory. The free particle, the simple harmonic oscillator, the hydrogen atom, and central force problems will be discussed. Both time independent and time dependent perturbation theory will be covered. *Four hours of lecture and recitation. Prerequisite: either Astronomy and Physics 26 (Waves and Particles A) or Chemistry 31 (Physical Chemistry II), and Mathematics 21 (Differential Equations).*

49 ASTRONOMY AND PHYSICS COLLOQUIA

Active scientists in astronomy, physics, and related areas are invited to present lectures on their own research or other professional activities. In addition, seniors majoring in astronomy or physics present the results of a literature survey or individual research project. One hour per week. Majors in this department must attend three semesters without credit during junior and senior years (register

for non-credit 00, Colloquia). Credit may be earned during the senior semester in which the student's presentation is given.

70-79 INTERNSHIP (See Index)

Interns in physics work off-campus under the supervision of professional physicists employed by local industries or hospitals.

80-89 INDEPENDENT STUDY (See Index)

Independent studies may be undertaken in most areas of astronomy and/or physics.

90-99 INDEPENDENT STUDY FOR DEPARTMENTAL HONORS (See Index)

BIOLOGY

Associate Professor: Angstadt (Chairman)
Assistant Professor: Diehl, Gabriel, D. King, Zaccaria

A major consists of eight Biology courses including 10-11, 21, 22, 23, 24, and 25. In addition, three units of chemistry and two units of mathematics are required. The chemistry requirement must include at least one unit of organic chemistry chosen from Chemistry 5, 20 or 21. The mathematics courses must be chosen from courses numbered 9, 13, 14, 15, 17 or above or their equivalent. Certain specific exceptions to the core program will be made for three-year students enrolled in cooperative programs. Such exceptions are noted under the particular cooperative program described in the last section of the Curriculum Chapter of the catalog and students interested in these programs should contact the Program Director before finalizing their individual programs. Credit may not be earned for both Biology 1 and 10 or for both Biology 2 and 11. Consent of instructor may replace Biology 10-11 as a prerequisite for all Biology courses.

1-2 PRINCIPLES OF BIOLOGY

An investigation of biological principles, including ecological systems, form and function in selected representative organisms (especially man), cell theory, molecular biology, reproduction, inheritance, adaptation, and evolution. The course is designed primarily for students not planning to major in the biological sciences. *Three hours of lecture and one two-hour laboratory per week.*

3 FIELD BIOLOGY FOR TEACHERS

A methods course for students preparing to teach biology. Sources and methods of collecting and preserving various plant and animal materials. *Summer Term only.*

5-6 HUMAN ANATOMY—PHYSIOLOGY

An introduction to the physics and chemistry relative to biological systems. Human anatomy, physiology, and developmental biology will be surveyed. An introduction to microbiology with emphasis given to host-pathogen

relationships and the immune response. *Three hours of lecture and one three-hour laboratory per week.*

10-11 INTRODUCTION TO BIOLOGY

An introduction to the study of biology designed for students planning to major in the biological sciences. Major topics considered include the origin of life, cellular respiration and photosynthesis, genetics, development, anatomy and physiology, ecology, behavior and evolution. *Three hours of lecture and one three-hour laboratory per week.*

21 MICROBIOLOGY

A study of microorganisms. Emphasis is given to the identification and physiology of microorganisms as well as to their role in disease, their economic importance and industrial applications. *Three hours of lecture and two two-hour laboratory periods per week. Prerequisite: Biology 10-11.*

22 GENETICS

A general consideration of the principles governing inheritance including treatment of classical, molecular, cytological, physiological, microbial, human and population genetics. *Three hours of lecture and two two-hour laboratory periods per week. Prerequisite: Biology 10-11.*

23 ANIMAL PHYSIOLOGY

The mechanisms and functions of animal systems including the autonomic, endocrine, digestive, cardio-vascular, respiratory, renal, nervous, and reproductive systems. Mammalian physiology is stressed. *Three hours of lecture and one three-hour laboratory per week. Prerequisite: Biology 10-11.*

24 ECOLOGY

The study of the principles of ecology with emphasis on the role of chemical, physical, and biological factors affecting the distribution and succession of plant and animal populations and communities. Included will be field studies of local habitats as well as laboratory experimentation. *Two hours of lecture and one four-hour laboratory per week. Prerequisite: Biology 10-11.*

25 PLANT SCIENCES

A survey of the structure, development, function, classification and use of plants, with emphasis on flowering plants. The study will comprise four general topic areas: Form, including morphology and anatomy of plants in growth and reproduction; Function, concentrating on nutrition and metabolism peculiar to photosynthetic organisms; classification systems and plant identification; and human uses of plants. *Three hours of lecture and one three-hour laboratory per week. Prerequisite: Biology 10-11*

30 COMPARATIVE ANATOMY OF VERTEBRATES

Detailed examination of the origins, structure, and functions of the principal organs of vertebrates. Special attention is given to the progressive modification of organs from lower to higher vertebrates. *Three hours of lecture and one four-hour laboratory per week. Prerequisite: Biology 10-11. Alternate years.*

31 HISTOLOGY

A study of the basic body tissues and the microscopic anatomy of the organs and structures of the body which are formed from them. Focus is on normal human histology. *Three hours of lecture and one four-hour laboratory per week. Prerequisite: Biology 10-11. Alternate years.*

33 ECONOMIC AND SYSTEMATIC BOTANY

Structure and classification of plants, with emphasis on those species, particularly food and drug plants, having significance for human affairs. *Three hours of lecture and one three-hour laboratory per week. Prerequisites: Biology 10-11. Biology 25. Alternate years.*

34 INVERTEBRATE ZOOLOGY

Comparative study of the invertebrate phyla with emphasis on phylogeny, physiology, morphology and ecology. *Two three-hour lecture/laboratory periods per week. Prerequisite: Biology 10-11. Alternate years.*

35 CELLULAR PHYSIOLOGY

Physico-chemical background of cellular function: functions of membrane systems and organelles; metabolic pathways; biochemical and cellular bases of growth; development and responses of organisms. *Three hours of lecture and one three-hour laboratory per week. Prerequisite: Biology 10-11, and a year of Chemistry. Alternate years.*

36 INTRODUCTION TO MARINE BIOLOGY AND BIOLOGICAL OCEANOGRAPHY

The study of major marine habitats and the adaptations of marine organisms as well as the physical and chemical characteristics of oceans. This field oriented course is held at a major Marine Biological Station, and includes diving and collecting from boats. *Prerequisite: Biology 10-11. May term only.*

37 FIELD ORNITHOLOGY

A field oriented course, with in-the-field discussions, demonstrations and exercises dealing with the systematics and identification of the birds of the Northern U.S., their behavior, migration, habitat selection and populations dynamics. Studies will stress experimental techniques used in the field, including banding, recording and playback methods, territorial mapping and population analysis. *Prerequisite: Biology 10-11. May term only.*

38 CLINICAL MICROBIOLOGY

A rigorous introduction to Clinical Microbiology with emphasis given to rapid identification of human bacterial pathogens. Laboratory to include such diagnostic procedures as antibiotic sensitivity testing, serological diagnosis, anaerobic culture techniques and hemolytic reactions. Field trips will be taken to several clinical labs. *Prerequisites: Biology 10-11, Biology 21. May term only.*

41 VERTEBRATE EMBRYOLOGY

A study of the development of vertebrates from fertilization to the fully formed fetus. Particular attention is given to the chick and human as representative organisms. *Two three-hour lecture/laboratory periods per week. Prerequisite: Biology 10-11. Alternate years.*

42 ANIMAL BEHAVIOR

A study of the causation, function, evolution, and biological significance of animal behaviors in their normal environment and social contexts. *Three hours of lecture and one four-hour laboratory each week. Prerequisite: Biology 10-11. Alternate years.*

44 BIOCHEMISTRY

Emphasis is given to the metabolism of carbohydrates, lipids, amino acids, proteins, and nucleic acids; integration of metabolism; and biochemical control mechanisms including allosteric control, induction, repression, as well as the various types of inhibitive control mechanisms. *Three hours of lecture, one three hour laboratory and one hour of arranged work per week. Prerequisite: Chemistry 20-21 or Chemistry 5, or consent of instructor. Cross-listed as Chemistry 44. Alternate years.*

46 PLANT ANATOMY AND PHYSIOLOGY

A study of plant physiology as a function of plant anatomy. Metabolic relationships and environmental factors will be examined from a background of the structure and development of cells, tissues, organs, and whole plants. *Three hours of lecture and one three-hour laboratory per week. Prerequisites: Biology 10-11, Biology 25. Alternate years.*

47 IMMUNOLOGY

The course introduces concepts concerning how pathogens cause disease and host defense mechanisms against infectious diseases. Characterization of and relationships between antigens, haptens, and antibodies are presented. Serological assays will include: agglutination precipitations, immunofluorescence, immunoelectrophoresis, and complement fixation. Other topics are: immediate and delayed hypersensitivities (i.e. allergies such as hay fever and poison ivy), immunological renal diseases, immunohematology (blood groups, etc.) the chemistry and function of complement autoimmunity and organ graft rejection phenomena. *Three hours of lecture, one three-hour laboratory and one hour of arranged work per week. Prerequisite: Biology 10-11. Alternate years.*

48 ENDOCRINOLOGY

This course begins with a survey of the role of the endocrine hormones in the integration of body functions. This is followed by a study of the control of hormone synthesis and release, and a consideration of the mechanisms by which hormones accomplish their effects on target organs. *Two three-hour lecture/laboratory periods per week. Prerequisite: Biology 10-11. Alternate years.*

70-79 INTERNSHIP (See Index)

Recent samples of internships in the department include ones with the Department of Environmental Resources, nuclear medicine or rehabilitative therapies at the local hospital.

80-89 INDEPENDENT STUDY (See Index)

Departmental Studies are experimentally oriented and may entail either lab or field work.

90-99 INDEPENDENT STUDY FOR DEPARTMENTAL HONORS (See Index)

Examples of recent Honors Projects have involved stream analysis, gypsy moth research, drug synthesis and testing.

BUSINESS ADMINISTRATION

Professor: Hollenback (Chairman)
Assistant Professor: E. King, Shareef, Weaver
Lecturer: Larrabee

The major is designed to train students in analytical thinking and verbal and oral communication, in addition to educating them in the principal disciplines of business. To accomplish this, ten courses are required: Business 10-11, 23, 28-29, 38-39, 40, and 41 and Mathematics 13. Business 32, 43, or 44 may be substituted for Business 29, and Business 33 may be substituted for Business 39. Accounting 10 may be substituted for Business 10 if a student's major changes. Majors also are urged to enroll in Economics 10, 11; Business 35 and 36; Mathematics 12 and 15, and are encouraged to take a foreign language. The additional elective offerings are intended to add depth in the areas of finance, marketing, and management.

10-11 MANAGERIAL ACCOUNTING

The business firm is a decision-making institution adapting to a constantly changing environment. Future administrators and managers are introduced to their stewardship responsibilities by use of accounting and statistical techniques as tools in planning and controlling the organization.

23 QUANTITATIVE BUSINESS ANALYSIS

Techniques of quantitative analysis useful in business management. Topics include: sampling, hypothesis testing, index numbers, analysis of time series, linear programming, and decision theory. *Prerequisite: Math 13 or consent of instructor.*

28-29 MARKETING MANAGEMENT

Planning, organization, and control of the distribution activities of the firm, and an analysis and evaluation of the marketing system, its institutions and processes. Application of marketing principles and the development of strategies for specific marketing problems. Product, channel flow, promotion and pricing strategies explored. Readings, cases, and games.

32 ADVERTISING

Nature, scope, methods, and effects of promotion. Techniques of analysis and control in the use of advertising and publicity as tools in developing business strategy.

33 INVESTMENTS

Analysis of the leading types of investments available to the individul and the firm. Use of forecasting methods, financial reports, and financial indicators. Methods of buying and selling securities with a discussion of the agencies involved including brokerage houses and stock exchanges.

34 INSURANCE

Analysis of the major insurance methods of overcoming risk, including: life, accident, health, marine, and social insurance. Fidelity and surety bonds. Commercial and government plans.

35 LEGAL PRINCIPLES I

Lectures and analysis of cases on the nature, sources, and fundamentals of the law in general, and particularly as relating to contracts, agency, and negotiable instruments. *Open only to juniors and seniors.*

36 LEGAL PRINCIPLES II

Lectures on the fundamentals and history of the law relating to legal association, real property, wills, and estates. *Open only to juniors and seniors.*

38-39 FINANCIAL MANAGEMENT

Planning, organization, and control of the financial aspects of the firm. Development of financial principles and application to specific situations. Sources and uses of funds, costs of funds, profit determination, expansion, reorganization and liquidation. *Prerequisite: Business 11 or Accounting 20, and Business 23.*

40 MANAGEMENT CONCEPTS

Structural characteristics and functional relationships of a business organization as well as the problems encountered in coordinating the internal resources of a firm. Emphasis on administrative efficiency and procedures.

41 BUSINESS POLICIES

Planning, organization, and control of business operations; setting of goals; coordination of resources; development of policies. Analysis of strategic decisions encompassing all areas of a business, and the use and analysis of control measures. Emphasis on both the internal relationship of various elements of production, finance, marketing, and personnel and the relationship of the business entity to external stimuli. Readings, cases, and games. *Prerequisites: Business 23, 28-29, 38-39, and 40 or consent of instructor. Seniors only.*

42 PERSONNEL MANAGEMENT

An introduction to the managerial problems of recruiting, selecting, training, and retraining the human resources of the firm. Emphasis is placed on the interrelationship of personnel policies with management objectives and philosophies in such areas as fringe benefits, wage and salary policies, union activities, and health and safety.

43 RETAIL MANAGEMENT I

Planning, organization, and control of the retailing firm. Competitive strategy development through store location, layout, administrative organization, buying and pricing. Cases, reading, and papers. *Alternate years.*

44 RETAIL MANAGEMENT II

Inventory control, retail sales, promotion, and financial analysis of the enterprise. Survey of current issues and government, social, and economic forces of concern to the retailer. Retailing principles applied to specific management situations through cases, games, and reading. *Prerequisite: Business 43 or consent of instructor. Alternate years.*

46 PRODUCTION MANAGEMENT

An introduction to the production function in industry. Topics include: product design, plant location and layout, operational analysis, performance standards, line balance theory, inventory control, and the impact of automation through technological change. *Alternate years.*

47 CREATIVE ADVERTISING

A workshop concerned with theme, copy, and effective presentation of advertisements for print media, radio, and direct mail. Primarily an exploration of creativity through analysis of works of artists and writers with application to practical advertising and tailored to the interests of individual students. *May Term.*

48 SALES SEMINAR

The role of selling in the economy. The art of creative selling; application of theories from the behavioral sciences to selling through the analysis of sales situations and techniques. *Alternate years.*

49 MANAGING THE SMALL BUSINESS

How the potential businessman proceeds in establishing, operating, and profiting from a small business operation. Considered and analyzed are such aspects as marketing, managing, financing, promoting, insuring, establishing, developing, and staffing the small retail, wholesale service, and manufacturing firm. *May term.*

70-79 INTERNSHIP (See Index)

Typical examples are marketing analysis for a paper products firm, planning a branch store, hotel and real estate management, banking and insurance.

80-89 INDEPENDENT STUDY (See Index)

Examples of recent studies are: The economic impact of a college on a community; a marketing strategy for a local firm entering the consumer market.

90-99 INDEPENDENT STUDY FOR DEPARTMENTAL HONORS (See Index)

A recent project was a study of the evolution of anti-trust legislation in the United States.

CHEMISTRY

Professor: Hummer, Radspinner
Associate Professor: Franz (Chairman)
Part-Time Instructor: Baggett

A major consists of eight Chemistry courses: Chemistry 10-11, 20-21, 30-31, 32, and 33; Mathematics 18, 19, 20, and Astronomy and Physics 25, 26. Mathematics 15 and 21, and French or German are highly recommended. To be certified in secondary education, chemistry majors must also pass two biology courses numbered 10 or higher.

10 GENERAL CHEMISTRY I

An introduction to the concepts and models of chemistry which are necessary for an understanding of the fabric and dynamics of the material world. These principles include stoichiometry, atomic and molecular structure and properties, the states of matter, solutions, kinetics, equilibrium, and nomenclature. A study of the chemistry of representative elements and their compounds is made through the application of fundamental principles. The laboratory work introduces the student to methods of separation, purification, and identification of compounds according to their physical properties. *Three hours lecture, one hour discussion, and one three-hour laboratory period each week. Prerequisite: Placement in Chemistry 10 is determined in part by a student's score on the mathematics examination taken by all incoming Freshmen during orientation.*

11 GENERAL CHEMISTRY II

Continuation of Chemistry 10, with emphasis on the foundations of analytical, inorganic, and physical chemistry. The principal unifying concepts of chemical systems are examined in both Chemistry 10 and 11. The laboratory treats aspects of quantitative and qualitative analysis. *Three hours lecture, one hour discussion, and one three-hour laboratory period each week. Prerequisite: Chemistry 10.*

15 BRIEF ORGANIC CHEMISTRY

This course is designed for those non-chemistry majors who elect a single semester course only in organic chemistry. The material will illustrate principles and concepts of organic chemistry supported by that descriptive material which would find application for students of medical technology,

biology, nursing, forestry, education, and the humanities. Topics included are bonding and structure, alcanes, arenes, and their functional derivatives, amino acids and proteins, carbohydrates, and other naturally occurring compounds. *Three hours of lecture and one four-hour laboratory period each week. Prerequisite: Chemistry 10. Not open for credit to students who have received credit for Chemistry 20.*

20-21 ORGANIC CHEMISTRY

A systematic study of the compounds of carbon including both aliphatic and aromatic series. The laboratory work introduces the student to simple fundamental methods of organic synthesis, isolation, and analysis. *Three hours lecture and one four-hour laboratory period each week. Prerequisite: Chemistry 11.*

26 CLINICAL ANALYSIS

A presentation of selected wet-chemical and instrumental methods of quantitative analysis with an orientation toward clinical applications in medical technology. Topics include: general methods and calculations; solutions; titrations; photometric analyses (colorimetric, atomic absorption, flame emission); electrochemical methods (ion-selective electrodes, coulometry); automation. *Lecture, recitation, and laboratory daily. Prerequisite: Chemistry 10-11, or consent of the instructor. May not be taken for credit following Chemistry 32. May Term only.*

30-31 PHYSICAL CHEMISTRY

A study of the fundamental principles of theoretical chemistry and their applications. The laboratory work includes techniques in physiochemical measurements. *Three hours lecture and one four-hour laboratory period each week. Prerequisite: Chemistry 11, Mathematics 20, and one year of Physics or consent of instructor.*

32 ANALYTICAL CHEMISTRY

A study of the fundamental methods of gravimetric, volumetric, and elementary instrumental analysis together with practice in laboratory techniques and calculations of these methods. *Two hours lecture and two three-hour laboratory periods each week. Prerequisite: Chemistry 11 or consent of instructor.*

33 ADVANCED INORGANIC CHEMISTRY

A study of modern theories of atomic and molecular structure and their relationship to the chemistry of selected elements and their compounds. *Three hours lecture and one four-hour laboratory period each week. Prerequisite: Chemistry 30, Mathematics 20, and one year of Physics or consent of instructor.*

39 INTRODUCTION TO QUANTUM MECHANICS

After presenting the origin, basic concepts and formulation of Quantum Mechanics with emphasis on its physical meaning, the free particle, simple harmonic oscillator and central force problems will be investigated. Both time independent and time dependent perturbation theory will be covered. The elegant operator formalism of quantum mechanics will conclude the course. *Four hours of lecture and recitation. Prerequisites: Mathematics 21, either Chemistry*

31 or Astronomy and Physics 26, and consent of instructor. Cross-listed as Astronomy and Physics 48.

40 ADVANCED ORGANIC CHEMISTRY

Selected topics, which may include mechanisms of organic reactions, synthesis, detailed structure and chemistry of natural products, polynuclear hydrocarbons, and aromatic heterocyclics. *Three hours lecture. Prerequisite: Chemistry 21.*

41 QUALITATIVE ORGANIC ANALYSIS

Theory and application of the systematic identification of pure organic compounds and mixtures. *Two hours lecture and two three-hour laboratory periods each week. Prerequisite: Chemistry 21.*

43 ADVANCED ANALYTICAL CHEMISTRY

A study of advanced analytical methods with emphasis on chromatographic, electrochemical, and spectroscopic methods of analysis. *Three hours lecture and one four-hour laboratory period each week. Prerequisite: Chemistry 31 and 32.*

44 BIOCHEMISTRY

Emphasis is given to the metabolism of carbohydrates, lipids, amino acids, proteins, and nucleic acids; integration of metabolism; and biochemical control mechanisms including allosteric control, induction, repression, as well as the various types of inhibitive control mechanisms. *Prerequisite: Chemistry 21 or 5 or consent of instructor. Cross-listed as Biology 44.*

45 SPECTROSCOPY AND MOLECULAR STRUCTURE

Theory and practice of molecular structure determination by spectroscopic methods. *Three hours lecture. Pre or co-requisites: Chemistry 31, 33, or consent of instructor.*

48 CHEMISTRY COLLOQUIUM

A seminar in which faculty, students, and invited professional chemists discuss their own research activities or those of others which have appeared in the recent chemical literature. *Prerequisite: Three semesters of non-credit Chemistry Colloquium taken during the junior and senior years.*

70-79 INTERNSHIP (See Index)

The student will ordinarily work under supervision in an industrial laboratory and submit a written report on his project.

80-89 INDEPENDENT STUDY (See Index)

The student will ordinarily work on a laboratory research project and will write a thesis on his work.

90-99 INDEPENDENT STUDY FOR DEPARTMENTAL HONORS (See Index)

The student will ordinarily work on a laboratory research project with emphasis being on the student's showing initiative and making a scholarly contribution. A thesis will be written.

CRIMINAL JUSTICE

Assistant Professor: Strauser (Coordinator)

This major is designed to acquaint students with the American criminal justice system and to provide an understanding of the social, psychological, philosophical, and political contexts within which the system of criminal justice functions. Its aim is to develop students' intellectual and scientific skills in raising and attempting to answer important questions about the system of justice and its place in society. The program offers opportunity for intern experience in the field and prepares for careers in the areas of law enforcement, probation and parole, prisons, and treatment services.

The major has two tracks. Track I prepares for careers in Law Enforcement. Track II prepares for careers in Corrections.

Track I—Law Enforcement. The major consists of ten courses, distributed as follows:

A. Professional courses in criminal justice (three courses)

Introduction to the Criminal Justice System (Sociology and Anthropology 15)
Introduction to Law Enforcement (Sociology and Anthropology 23)
The American Prison System (Sociology and Anthropology 39)

B. Courses in the social, psychological, philosophical, and political context of the justice system (seven courses)

Criminology (Sociology and Anthropology 30) and either Juvenile Delinquency (Sociology and Anthropology 21) or Racial and Cultural Minorities (Sociology and Anthropology 34) (two courses)

Abnormal Psychology (Psychology 16) (one course)

America as a Civilization (American Studies 10). Afro-American History (History 28), or United States Social and Intellectual History Since 1877 (History 43) (one course)

Law and Society (Political Science 35) and Civil Rights and Liberties (Political Science 31) (two courses)

Philosophical Issues in Criminal Justice (Philosophy 18) (one course)

C. Internship or practicum in law enforcement. (Recommended but not required for the major)

Track II—Corrections. The major consists of ten courses, distributed as follows:

A. Professional courses in criminal justice (three courses)

Introduction to the Criminal Justice System (Sociology and Anthropology 15)
The American Prison System (Sociology and Anthropology 39)
Introduction to Social Work (Sociology and Anthropology 42)

B. Courses in the social, psychological, philosophical, and political context of the justice system (seven courses)

Criminology (Sociology and Anthropology 30) and either Juvenile Delinquency (Sociology and Anthropology 21) or Racial and Cultural Minorities (Sociology and Anthropology 34) (two courses)

Abnormal Psychology (Psychology 16) (one course)

America as a Civilization (American Studies 10). Afro-American History (History 28), or United States Social and Intellectual History Since 1877 (History 43) (one course)

Law and Society (Political Science 35) and Civil Rights and Liberties (Political Science 31) (two courses)

Philosophical Issues in Criminal Justice (Philosophy 18) (one course)

C. Internship or practicum in corrections. (Recommended but not required for the major) *Prerequisites: Mathematics 13, Psychology 21, and Psychology 39.* These prerequisites may be waived in certain cases by the Coordinating Committee.

Majors should seek advice concerning course selection from members of the coordinating committee and should note course prerequisites in planning their programs.

ECONOMICS

Professor: Opdahl (Chairman), Rabold

The major has two tracks. Track I is designed for the student whose primary interest lies in business management; Track II is designed for students with an interest in graduate work, teaching, government, or non-business careers and for those with less well defined interests.

Track I—Managerial Economics requires: Economics 10, 11, 32, and 41; Business 10-11, or Accounting 10 and 20; Business 38 and 39; plus two electives from the following: Economics 20, 31, 35, 37, 43 and Business 40.

Track II—Political Economy requires: Economics 10, 11, 30, 31, 40, and five electives of which three must be in economics and two in political science, all selected with the advice and consent of the student's advisor or department chairman.

In addition, the following courses are recommended: All majors—Math 13 and Business 23; Majors planning graduate work—Math 12 and 18; Track II majors—Business 10-11.

2 CONSUMER ECONOMICS

A course in "family" or "practical" economics, designed to teach students how they and their families can be intelligent consumers: that is, how they can spend, save, and borrow so as to maximize the value they receive for the income they have. Treats subjects such as intelligent shopping; the uses and abuses of credit; investing, savings; buying insurance, automobiles and houses; medical care costs; estates and wills; etc. *Alternate years.*

10 PRINCIPLES OF POLITICAL ECONOMY I

Macroeconomics. Deals with problems of the economic system as a whole. What influences the level of national income and employment? What is inflation and why do we have it? What is the role of government in a modern capitalistic system? How does business organize to produce the goods and services we demand? How are the American financial and banking systems organized? What is the nature of American unionism? What are the elements of government finance and fiscal policy?

11 PRINCIPLES OF POLITICAL ECONOMY II

This course focuses upon microeconomics and selected current economic problems. It deals with the relatively small units of the economy such as the firm and the family. Analyzes demand and supply. Discusses how business firms decide what and how much to produce and how goods and services are priced in different types of markets. Also considers such problems as economic growth, international trade, poverty, discrimination, ecology, and alternative economic systems.

20 MONEY AND BANKING

Covers business fluctuations and monetary and fiscal policy; the financial organization of society; the banking system; credit institutions; capital markets; and international financial relations. *Prerequisite: Economics 10 and 11. Alternate years.*

22 ECONOMIC SYSTEMS OF THE WEST: Capitalism and Socialism

A comparative analysis of the underlying ideologies, the basic institutions and the performance of selected economic systems extant in the West. *Alternate years.*

23 SOVIET-TYPE ECONOMIES

An analysis of the ideologies, institutions, and performance of Soviet-type economies, with emphasis upon Marxian theory and the economy of the U.S.S.R.; comparison of selected Eastern European and Chinese approaches to Communism. *Alternate years.*

24 URBAN PROBLEMS

The application of economic theory to the study of significant social, political, and economic problems associated with urbanization, including poverty, employment, education, crime, health, housing, land use and the environment, transportation, and public finance. Analysis of solutions offered. *Alternate years.*

25 ENVIRONMENTAL ECONOMICS

A study of the relationship between environmental decay and economic growth, with particular reference to failures of the price and property rights systems; application of cost/benefit analysis; measures aimed at the creation of an ecologically viable economy. *Alternate years.*

30 INTERMEDIATE MICROECONOMICS

An advanced analysis of contemporary theory regarding consumer demand, production costs and theory, profit maximization, market structures, and the determinants of returns to the factors of production. *Prerequisite: Economics 10 and 11.*

31 INTERMEDIATE MACROECONOMICS

An advanced analysis of contemporary theory and practice with regard to business fluctuations, national income accounting, the determination of income and employment levels, and the use of monetary and fiscal policy. *Prerequisite: Economics 10 and 11.*

32 GOVERNMENT AND THE ECONOMY

An analytical survey of government's efforts to maintain competition through antitrust legislation; to supervise acceptable cases of private monopoly through public utility regulation and via means of regulatory commissions; and to encourage or restrain various types of private economic activities. *Alternate years. Prerequisite: Economics 10 and 11, or consent of instructor.*

35 LABOR PROBLEMS

The history of organized labor in the United States, including the structure of unions; employers' opposition to unions; the role of government in labor-management relations; the economic impact of unions. *Alternate years.*

37 PUBLIC FINANCE

An analysis of the fiscal economics of the public sector, including the development, concepts, and theories of public expenditures, taxation, and debt at all levels of American government. Includes also the use of fiscal policy as an economic control device. *Prerequisite: Economics 10 and 11 or consent of instructor.*

40 HISTORY OF ECONOMIC THOUGHT

A discussion of the origins, development, and significance of the economic ideas embodied in the works of Smith, Marx, Schumpeter, Keynes, and others. *Prerequisite: Economics 10 and 11 or consent of instructor.*

41 MANAGERIAL ECONOMICS

The application of economic theory and methodology to the solution of business problems. Subjects include: optimizing techniques, risk analysis, demand theory, production theory, cost theory, linear programming, capital budgeting, market structures, and the theory of pricing. *Prerequisite: Economics 10 and 11.*

43 INTERNATIONAL TRADE

A study of the principles, theories, development, and policies concerning international economic relations, with particular reference to the United States. Subjects covered include: U.S. commercial policy and its development; international trade theory; tariffs and other protectionist devices; international monetary system and its problems; balance of payments issues. *Alternate years. Prerequisite: Economics 10 and 11.*

45 DEVELOPMENT OF UNDERDEVELOPED NATIONS

A study of the theories and problems of capital accumulation, allocation of resources, technological development, growth, planning techniques and institutions, and international relations encountered by the developing nations. *Alternate years.*

70-79 INTERNSHIP (See Index)

Typically off-campus in business, banking, or government, supervised by assigned employee of sponsoring organization.

80-89 INDEPENDENT STUDY (See Index)

Superior students may select independent study in various courses, particularly in preparation for graduate school.

90-99 INDEPENDENT STUDY FOR DEPARTMENTAL HONORS (See Index)

EDUCATION

Associate Professor: Keesbury (Chairman)
Assistant Professor: Conrad, Studier

Lycoming believes that the liberal arts provide the best preparation for future teachers, thus all education students complete a liberal arts major in addition to the certification requirements. Students can be certified in elementary education or one or more of the following secondary areas: biology, chemistry, English, French, general science (with biology and astronomy/physics tracks), German, mathematics, physics, social studies, and Spanish. All teacher education programs are approved by the Pennsylvania Department of Education and Pennsylvania certificates are recognized in most other states either through reciprocal agreements or by transcript evaluation.

Education 20 and Psychology 38 are prerequisites to all other offerings in the Education Department. Education 20 should be taken at least two (2) semesters before the Professional Semester.

Students seeking elementary certification must complete Mathematics 7, Physical Education A (Elementary Games), Education 40, 41, 42, 43 as prerequisites to the Professional Semester (Education 45, 47, and 48).

Students interested in the teacher education program must register with the Education Department not later than the first semester of the sophomore year.

Application for the Professional Semester must be made before October 1 of the junior year. The Education Department will admit to the Professional Semester those applicants who have a minimum cumulative grade point average of 2.00; are in good academic standing; have satisfactorily completed the junior year participation requirements (secondary students only); have paid the student teaching fee; have had a satisfactory interview with a member of the faculty of the Education Department; and are recommended by their major department and the Education Department. Since major departments have different criteria for their recommendations, students should consult with the chairman of their major department about those requirements as soon as they begin to study for certification.

20 INTRODUCTION TO THE STUDY OF EDUCATION

A study of teaching as a profession with emphasis on the economic, social, political, and religious conditions which influence American schools and teachers. Consideration is given to the school environment, the curriculum, and the children with the intention that the students will examine more rationally their own motives for entering the profession. *Not open to freshmen.*

32 INSTRUCTIONAL MEDIA AND COMMUNICATIONS

A study of the value, design, construction, and application of the visual and auditory aids to learning. Practical experience in the handling of audio-visual equipment and materials is provided. Application of Audio-Visual Techniques. Application of the visual and auditory aids to learning. Students will plan and carry out actual teaching assignments utilizing various A-V devices.

39 PUBLIC SCHOOL CURRICULUM

An examination of the various curricula of the public schools and their relationships to current practices. Special attention will be given to the meaning and nature of the curriculum; the desirable outcomes of the curriculum; conflicting and variant conceptions of curricular content; modern techniques of curricular construction; criteria for the evaluation of curricula; the curriculum as a teaching instrument. Emphasis will be placed upon the curriculum work within the teaching field of each individual.

40 TEACHING LANGUAGE ARTS AND CHILDREN'S LITERATURE IN THE ELEMENTARY SCHOOL

A course designed to consider the principal means of communication, oral and written, including both practical and creative uses. Attention will be given to listening, speaking, written expression, linguistics and grammar, spelling and handwriting. Stress will be placed upon the interrelatedness of the language arts. Children's literature will be explored as a vehicle for developing creative characteristics in children and for ensuring an appreciation of the creative writing of others. Observation and participation in the Greater Williamsport Area Elementary Schools. *Prerequisites: Education 20 and Psychology 38 or consent of the instructor.*

41 TEACHING THE SOCIAL STUDIES IN THE ELEMENTARY SCHOOL

Studies and experiences to develop a basic understanding of the structure, concepts, and processes of anthropology, economics, geography, history,

political science, and sociology as these relate to the elementary school social science curriculum. Practical applications, demonstrations of methods, and the development of integrated teaching units using tests, reference books, films, and other teaching materials. Observation and participation in the elementary schools of the Greater Williamsport Area. *Prerequisites: Education 20 and Psychology 38 or consent of the instructor.*

42 TEACHING SCIENCE IN THE ELEMENTARY SCHOOL

Science methods and materials interpreting children's science experiences and guiding the development of their scientific concepts. A study of the science content of the curriculum, its material and use. Observation and participation in the elementary schools of the Greater Williamsport Area. *Prerequisites: Education 20 and Psychology 38 or consent of the instructor.*

43 TEACHING READING IN THE ELEMENTARY SCHOOL

A basic course in the philosophy and rationale for and the implementation of an elementary developmental reading program from kindergarten through sixth grade. Emphasis is upon designing a reading instructional program which reflects the nature of the learning process and recognizes principles of child development through examination of the principles, problems, methods and materials used in elementary reading programs. Observation and participation in the Greater Williamsport Area Elementary Schools. *Prerequisites: Psychology 38, Education 20, 40, 41, and 42 or consent of the instructor.*

45 METHODS OF TEACHING IN THE ELEMENTARY SCHOOL (PART OF THE PROFESSIONAL SEMESTER)

The course emphasizes the relationship between the theoretical studies of physical, social, and cognitive development and the elementary classroom environment. Particular consideration will be given to the appropriate age and developmental level of the students with an emphasis upon the selection and utilization of methods in all the elementary subject areas including art and music. Specific attention will be given to the development of strategies for structuring lesson plans; for maintaining classroom control; and for overall classroom management. Direct application will be made to the individual student teaching experience. *Prerequisites: Math 7, Education 40, 41, 42, and 43 or consent of the instructor.*

46 METHODS OF TEACHING IN THE SECONDARY SCHOOL (PART OF THE PROFESSIONAL SEMESTER)

A study of materials, methods, and techniques of teaching with emphasis on the student's major. Stress is placed on the selection and utilization of visual and auditory aids to learning. Students will teach demonstration lessons in the presence of the instructor and the members of the class and will observe superior teachers in the secondary schools of the Greater Williamsport Area. *Prerequisites: Education 20, Psychology 38, and the Participation Experience.*

47 PROBLEMS IN CONTEMPORARY AMERICAN EDUCATION (PART OF THE PROFESSIONAL SEMESTER)

Seminar in the issues, problems and challenges encountered by teachers in

the American public schools, especially those related to the student teaching experience.

48 PRACTICE TEACHING IN THE ELEMENTARY SCHOOL (PART OF THE PROFESSIONAL SEMESTER)

Two Units. Exceeds state mandated minimum requirements. Professional laboratory experience under the supervision of a selected cooperating teacher in a public elementary school of the Greater Williamsport Area. Organized learning experience. Actual classroom experience.*

49 PRACTICE TEACHING IN THE SECONDARY SCHOOL (PART OF THE PROFESSIONAL SEMESTER)

Two Units. Exceeds state mandated minimum requirements. Professional laboratory experience under the supervision of a selected cooperating teacher in a public elementary school of the Greater Williamsport Area. Organized learning experience. Emphasis on actual classroom experience, responsibility in the guidance program and out-of-class activities.*

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*Practice teachers are required to follow the calendar of the school district to which they are assigned.

ENGLISH

Professor: Van Marter
Associate Professor: Jensen, Madden, Rife (Chairman)
Assistant Professor: Ford, F. Wild
Visiting Instructor: Koehler, Stone

A major consists of nine courses not including English 1 or English 2. These nine courses must include English 14, 15, 16, 17 and one writing course from the following: English 18, 22, 23, 24, 35 and 36.

The four electives may include any course from English 12 and above not already taken to satisfy the preceding requirements. With the consent of the English Department, an appropriate course from the offerings of other departments may be substituted for an English elective.

Majors seeking secondary certification in English are required to take English 38 and to complete successfully in the junior or senior year an experience in the teaching of English composition.

The English Department is one of six cooperating in the interdisciplinary program in Mass Communications, and would be an appropriate department for the four-course specialization required for the Communications major. The department also participates with seven others in the American Studies interdisciplinary major, in which American literature courses constitute an important part of the American arts concentration area.

1 INDIVIDUALIZED LABORATORY INSTRUCTION IN COLLEGE READING AND WRITING

Vocabulary building and reading for the main idea; review of spelling and grammar; organizing and writing the detailed paragraph and illustrative expository theme. Individualized instruction through tutorial and pro-

grammed materials to ensure mastery of the student's special problems in writing and reading.

One-half unit and grade of "S" will be assigned when the student has passed *all* of the mastery tests in reading and writing. For all students who have not been exempted from English 1 through their CLEP test scores or through their scores on an approved writing test taken prior to enrolling at Lycoming College.

2 COMPOSITION

Extensive practice in *either* report and evaluative writing *or* in analytic and argumentative writing. This may be accomplished by taking *one* of the following sequences:

Reading and Writing about Technology and Human Life—Extensive practice in report and evaluative writing. Readings dealing with problems and issues in business, in the natural and physical sciences, and in the related professions.

Reading and Writing about Humanities and Human Life—Extensive practice in analytic and argumentative writing. Readings dealing with problems and issues in the liberal arts, in law and the social sciences, and in the non-scientific helping professions.

12 INTRODUCTION TO LITERATURE

An introduction to the study of literature, designed primarily for freshmen. Lectures and discussions focusing on the major literary genres.

14 BRITISH LITERATURE I

Literary forms, themes and authors from the Anglo-Saxon through the Neo-Classical periods. Such writers as Chaucer, Spenser, Shakespeare, Milton, Swift, Pope, and Johnson; representative works from *Beowulf* to Sheridan's *The Rivals*.

15 BRITISH LITERATURE II

Literary movements and authors from the Romantic Period to the present. Particular emphasis on such writers as Blake, Wordsworth, Shelley, Mill, Tennyson, Browning, Rossetti, Arnold, Hardy, Yeats, Eliot.

16 19TH CENTURY AMERICAN LITERATURE

Brief survey of American literature and thought before 1800, followed by more intensive study of the literature and thought of the period 1800-1900. Bryant, Cooper, Emerson, Thoreau, Poe, Hawthorne, Melville, Whitman, Dickinson, Twain, Howells, and others.

17 20TH CENTURY AMERICAN LITERATURE

Major writers, movements, and tendencies in American literature during the present century. Such forces as naturalism, realism, and modernism; and such writers as James, Dreiser, Hemingway, Faulkner, Frost, Eliot, and Stevens.

18 ADVANCED COMPOSITION

Practical training in the writing of more extended essays of the kinds written in English I, and other kinds of expository and argumentative prose, including such forms as: essays of opinion and personal essays; critical commentaries and reviews; synopses, reports, and research papers.

20 THE NATURE OF FICTION

Study of either the novel or the short story; one or the other in a given semester, not both in the same semester. Novel: representative novels from the 18th Century to the present with emphasis on the development of the genre. Short story: emphasis on points of view of the authors studies.

21 THE DEVELOPMENT OF DRAMA

Discussion of typical plays of the Eastern World emphasizing conventions of form and performance. Varying focus and content ranging from classical to modern playwrights and periods.

22 CRITICAL WRITING

Introduction to the various ways of thinking and writing about literature and film, designed for people who wish to improve their understanding and enjoyment of the books and poems they read and the plays and films they see.

23 NEWS WRITING FOR THE PRINT MEDIA

Analysis and practice of the basic forms of news reporting and feature writing. The elements of news, the lead, style and structure, and types of stories. Students who have taken English 24 may take only writing workshop sessions of this course for ½ unit.

24 NEWS WRITING FOR RADIO AND TV

Offered in conjunction with English 23. Separate workshop sessions to analyze and practice the basic forms of news reporting as they apply to radio and TV. Students who have taken English 23 may take only workshop sessions of this course for ½ unit. *Alternate years.*

30 SHAKESPEARE

Study of representative plays drawn from the four sub-genres of Shakespeare's dramas: comedy, history, tragedy, and romance. Some attention to Shakespeare's life and times, but primary focus on the work itself.

31 MODERN FICTION

Study of the techniques, development, and major tendencies of modern fiction, from the last quarter of the 19th Century to the 1950's. Primary attention to representative works of such major writers as James, Conrad, Joyce, Lawrence, Hemingway, and Faulkner.

32 MODERN POETRY

Introduction to the themes and structures of 20th Century poetry. Beginning with Pound, Eliot, and Yeats, and moving through the century to the most recent accomplishments of contemporary poets. *Alternate years.*

33 WOMEN AND LITERATURE

Study of women writers alternating with study of the image of women in literature written by men and women. Possible focuses: major women writers of 19th and 20th Century British and American literature; contemporary women writers; traditional images of women in literature. *Alternate years.*

34 FILM AND LITERATURE

Analysis of the techniques of two different forms of communication—cinema and novel or play—by comparing the same story in both mediums. Attention to both "clasic" and modern films and literature. *Alternate years.*

35 FICTION WRITING

Beginning course in the writing of short fiction. Some study of the sources and techniques of modern and contemporary writers, but chief focus on student writing. *Alternate years.*

36 POETRY WRITING

A first course in poetry writing. Attention to the "closed" and "open" formal traditions of current poetry. In-class emphasis on student writing. *Alternate years.*

37 PUBLIC RELATIONS AND PUBLICITY WRITING

Communication and publicity techniques in the field of public relations focused on writing for the media; some attention to speeches, letters, and

house organs. *Prerequisite: English 23 or English 24 or consent of instructor. Alternate years.*

38 STRUCTURE AND HISTORY OF THE ENGLISH LANGUAGE

Study of the historical origins of the language and a modern language theory. *Alternate years.*

40 THE HERO IN MEDIEVAL LITERATURE

Study of the literature of the period as it reveals a transition from the concept of the epic hero to that of the chivalric hero, with the attendant shifts in literary forms, in codes for heroic behavior, and in philosophic world view. *Prerequisite: English 14 or consent of instructor. Alternate years.*

41 ROMANCE AND EPIC IN THE RENAISSANCE

Study of major writers from Malory to Milton. Emphasis on such works as *Le Morte D'Arthur, Don Quixote, The Faerie Queene,* and *Paradise Lost,* with other selected prose and dramatic works. *Prerequisite: English 14 or consent of instructor. Alternate years.*

42 POETRY OF THE ROMANTIC PERIOD

Study of the literary, philosophical, and historical significance of the Romantic Movement. Emphasis on the poetry of Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats. *Prerequisite: English 14 or consent of instructor. Alternate years.*

43 DICKENS AND THE VICTORIAN NOVEL

Comparison and contrast of four or five of Dickens' novels with other novels from the 1830's through the 1870's by such authors as Thackeray, the Brontes, Meredith, Trollope, and Hardy. *Alternate years.*

44 THE IRISH RENAISSANCE

Analysis of the sudden flowering of Irish literature in the early years of the 20th Century as witnessed in the works of Yeats, Joyce, Synge, O'Casey, and others. *Prerequisite: English 15 or 17 or consent of instructor. Alternate years.*

45 AMERICAN DRAMA FROM O'NEILL TO MILLER

Study of the development of the first significant American drama in the decades following World War I, especially the experimental drama of the 1920's and the social drama of the 1930's. O'Neill, Anderson, Rice, Behrman, Saroyan, Wilder, Odets, Hellman, and others. *Prerequisite: English 17 or 21 or consent of instructor. Alternate years.*

46 THE AMERICAN RENAISSANCE

Concentrated study of the American poets and novelists who revolutionized literary form and idea at the middle of the 19th Century. One or two writers

from each of the following two groups: Emerson, Thoreau, and Whitman; Poe, Hawthorne, and Melville. *Prerequisite: English 16 or consent of instructor. Alternate years.*

47 AMERICAN NOVELISTS AND POETS OF THE JAZZ AGE AND DEPRESSION

Concentrated study of two or three major writers in the social context of this period in modern American literature. Such combinations as Hemingway/Fitzgerald/Eliot and Faulkner/Frost are likely. *Prerequisite: English 17 or consent of instructor. Alternate years.*

48 CONTEMPORARY LITERATURE

Consideration of representative British, American, and some continental works, primarily fiction, written after World War II by such writers as Barth, Bellow, Updike, Burgess, Murdoch, Fowles, and Nabokov. *Alternate years.*

70-79 INTERNSHIP (See Index)

Interns typically work off campus in a profession related to their career interest such as law, public relations, journalism and others.

80-89 INDEPENDENT STUDY (See Index)

Recent studies include Chaucer, D. H. Lawrence, The Creative Process in Literature and Art, the Arthurian Legend, and Existentialism in Literature.

90-99 INDEPENDENT STUDY FOR DEPARTMENTAL HONORS (See Index)

Recent projects were Communication Models and the Feedback Principle, and Images of Women in the 1890's.

FOREIGN LANGUAGES AND LITERATURES

Associate Professor: Flam, Maples, MacKenzie (Chairman)
Assistant Professor: Toscano

Study of foreign languages and literatures offers opportunity to explore broadly the varieties of human experience and thought. It contributes both to personal and to international understanding by providing competence in a foreign language and a critical acquaintance with the literature and culture of foreign peoples. A major can serve as entree to careers in business, industry, government, publishing, education, journalism, social agencies, translating, and writing. It prepares for graduate work in literature or linguistics and the international fields of politics, commerce, law, health, and area studies.

FRENCH, GERMAN and SPANISH are offered as major fields of study. The major consists of at least eight courses numbered 10 or above. Majors seeking teacher certification and students planning to enter graduate school are advised to begin study of a second foreign language. The department encourages the development in breadth of programs including allied courses from related fields or a second major, and also individual or established interdisciplinary majors combining interest in several literatures or area or cross-cultural studies, for example: International Studies, 20th Century Studies, the Major in Literature, Majors, teacher certification candidates, and in fact all college students are encouraged to spend at least a semester of study abroad by applying to one of the many programs available. The department maintains a file of such programs.

Courses taught in English: Foreign Languages and Literature 25, French 28, and Spanish 28.

FOREIGN LANGUAGES AND LITERATURES

25 CONTINENTAL LITERATURE

A study of such major continental authors as Cervantes, Dostoevsky, Chekhov, Dante, Ibsen, Proust, Gide, Kafka, Hesse, Goethe, Sartre, Camus, Brecht, and Ionesco. Works read in English translation will vary and be organized around a different theme or topic; recent topics have been existentialism, modernism, and drama. *Prerequisite: None. May be repeated for credit with consent of instructor. May be accepted toward the English major with consent of the English Department.*

38 FOREIGN LANGUAGE: SYSTEMS AND PROCESS

Study of basic linguistic concepts as a tool for language learning and teaching. Discussion and application of language teaching techniques, including work in the language laboratory. Designed for future teachers of one or more languages and normally taken in the Junior year. Students should arrange through the Education Department to fulfill in the same semester the requirements of a participation experience in area schools. *Prerequisite: Consent of instructor.*

FRENCH

A major consists of at least eight courses numbered 10 or above, including at least one numbered 40 or above. Foreign Languages and Literatures 25 and 38 may be included in the major.

All majors who wish to be certified for teaching must pass courses 23, 31,

Foreign Languages and Literatures 38, and at least two courses numbered 40 or above. A language proficiency test is required of these students during their senior year.

1-2 ELEMENTARY

The aim of the course is to acquire the fundamentals of the language with a view to using them. Regular practice in speaking, understanding, and reading.

10-11 INTERMEDIATE

Review and development of the fundamentals of the language for immediate use in speaking, understanding, and reading with a view to building confidence in self-expression. *Prerequisite: French 2 or equivalent.*

20 CONVERSATION

Designed to develop conversational fluency and comprehension through small group discussions focusing on topics from readings in modern French culture, such as French social attitudes and French-American cultural differences. Some attention to grammar and writing. *Prerequisite: French 11 or equivalent.*

23 INTRODUCTION TO LITERARY STUDIES

Studies in French literature, with emphasis on critical reading and interpretation. Discussions, lectures, oral *exposés*, papers. *Prerequisite: French 20 or equivalent.*

28 MODERN FRANCE

A course designed to familiarize students with political and social structures and cultural attitudes in contemporary French society. Materials studied may include such documents as newspaper articles, interviews, and sociological surveys, and readings in history, religion, anthropology and the arts. Some attention to the changing education system and the family and to events and ideas which have shaped French society. May include some comparative study of France and the United States.

English Section: Not applicable toward satisfying the Foreign Language distribution requirement. *Prerequisite: None.*

French Section: Offers readings, papers, and interviews in French for students with sufficient language skill. Can be applied toward the Foreign Language distribution requirement. *Prerequisite: French 10 or equivalent competency as determined by the department.*

31 FRENCH GRAMMATICAL STRUCTURE

Study of phonetics and grammatical rules and their practical application in speaking and writing. *Recommended for all majors.*

41 FRENCH LITERATURE OF THE MIDDLE AGES AND THE RENAISSANCE

A study of selected works from *La Chanson de Roland* to Montaigne. *Prerequisite: French 23 or consent of instructor. Alternate years.*

43 FRENCH LITERATURE OF THE 17TH CENTURY

A study of major texts of the period: *préciosité*, the origins and theories of French classicism, Corneille, Pascal, Descartes. Classical tragedy and comedy: Racine, Molière. LaFontaine, Mme de La Fayette, La Bruyère. *Prerequisite: French 23 or consent of instructor. Alternate years.*

45 FRENCH LITERATURE OF THE 18TH CENTURY

The literary expression of ideas: Montesquieu, Voltaire, Rousseau, and the Encyclopedists. *Prerequisite: French 23 or consent of instructor. Alternate years.*

47 FRENCH LITERATURE OF THE 19TH CENTURY

The dimensions of the Romantic sensibility: Musset, Hugo, Vigny, Balzac, Stendhal. Realism and Naturalism in the novels of Flaubert and Zola. Reaction in the poetry of Baudelaire, Rimbaud, Verlaine, and Mallarmé. *Prerequisite: French 23 or consent of instructor. Alternate years.*

48 MODERN FRENCH THEATRE

Major trends in French drama from the turn of the century to Existentialism and the Theatre of the Absurd. Giraudoux, Anouilh, Sartre, Camus, Beckett, Ionesco, Genet, Adamov, and others. *Prerequisite: French 23 or consent of instructor. Alternate years.*

49 FRENCH LITERATURE OF THE 20TH CENTURY

Representative poets and novelists of modern France. Readings selected from the works of authors such as Proust, Gide, Aragon, Giono, Mauriac, Céline, Malraux, Saint-Exupéry, Camus, the "new novelists" (Robbe-Grillet, Butor, Sarraute, Le Clézio), and the poetry of Apollinaire, Valéry, the Surrealists (Breton, Reverdy, Eluard, Char), Saint-John Perse, Supervielle, Prévert, and others. Some attention to works of French-speaking African writers. *Prerequisite: French 23 or consent of instructor. Alternate years.*

70-79 INTERNSHIP (See Index)

80-89 INDEPENDENT STUDY (See Index)

Examples of recent studies in French include translation, existentialism, the classical period, enlightenment literature, and Saint-Exupéry.

90-99 INDEPENDENT STUDY FOR DEPARTMENTAL HONORS (See Index)

GERMAN

A major consists of eight courses numbered 10 or above. Foreign Languages and Literatures 38 and one unit of Foreign Languages and Literatures 25 may be included in the major.

All majors who wish to be certified for teaching must pass courses 31, 33, 34, and Foreign Languages and Literatures 38. A language proficiency test is required of these students during their senior year.

1-2 ELEMENTARY

Aim of course is to acquire the fundamentals of the language with a view to using them. Regular practice in speaking, understanding and reading.

10-11 INTERMEDIATE

Review and development of fundamentals of the language for immediate use in speaking, understanding, and reading with a view to building confidence in self-expression. *Prerequisite: German 2 or equivalent.*

20 CONVERSATION

Designed to develop aural comprehension and conversational fluency. Readings and discussions on topics of contemporary society in Germany, Switzerland, and Austria. Some attention to grammar and writing. *Prerequisite: German 11 or equivalent.*

31 GERMAN GRAMMATICAL STRUCTURE

Study of intonation, complex grammatical rules and their practical application, stylistics, and a brief survey of the development of the language. *Recommended for all majors.*

33 SURVEY OF GERMAN LITERATURE AND CIVILIZATION I

Designed to acquaint the student with important periods of German Literature, representative authors, and major cultural developments in Germany, Austria, and Switzerland. The course deals with literature from the Early Middle Ages through the 18th Century. *Prerequisite: German 20 or consent of instructor.*

34 SURVEY OF GERMAN LITERATURE AND CIVILIZATION II

Designed to acquaint the student with important periods of German literature, representative authors, and major cultural developments in Germany, Austria, and Switzerland. The course deals with the literature from the 19th Century to the present. *Prerequisite: German 20 or consent of instructor.*

40 GOETHE

A study of the life and works of Goethe. Goethe's significance in the Classical period and later. Readings in the major works. *Prerequisite: German 33 or 34 or consent of instructor.*

41 CLASSICAL GERMAN DRAMA

The development of *das klassische Drama* with emphasis on works of Lessing, Goethe, and Schiller. *Prerequisite: German 20.*

42 MODERN GERMAN DRAMA

The emergence of modern Drama commencing with Büchner and leading to Brecht. *Prerequisite: German 20.*

43 THE NOVELLE

The German Novelle as a genre relating to various literary periods. *Prerequisite: German 20.*

45 GERMAN POETRY

A study of selected poets or the poetry of various literary periods. *Prerequisite: German 33 or 34 or consent of instructor.*

47 MODERN GERMAN LITERATURE

A study of the major movements and writers from Naturalism, Expressionism, and the postwar period. Hauptmann, Rilke, Mann, Hesse, Kaiser, and others. *Prerequisite: German 33 or 34 or consent of instructor.*

70-79 INTERNSHIP (See Index)

80-89 INDEPENDENT STUDY (See Index)

Examples of recent studies in German include Classicism, Germanic Mythology, Hermann Hesse, the dramas of Frisch and Dürrenmatt.

90-99 INDEPENDENT STUDY FOR DEPARTMENTAL HONORS (See Index)

GREEK

Greek is not offered as a major.

1-2 NEW TESTAMENT GRAMMAR AND READINGS

Fundamentals of New Testament Greek grammar and readings of selected passages of the Greek text. *Alternate years.*

11 THE GOSPEL ACCORDING TO ST. MARK

A critical reading of the Greek text with special attention to exegetical questions. *Alternate years.*

12 THE EPISTLE TO THE ROMANS

A critical reading of the Greek text with special attention being given to the theology of St. Paul. *Alternate years.*

HEBREW

Hebrew is not offered as a major.

1-2 OLD TESTAMENT GRAMMAR AND READINGS

Fundamentals of Old Testament Hebrew grammar and readings of selected passages of the Hebrew text. *Alternate years.*

11-12 INTERMEDIATE OLD TESTAMENT HEBREW

A critical reading of the Greek text with special attention being given to the to exegetical questions. The text read varies from year to year. *Alternate years.*

RUSSIAN

Russian is not offered as a major. Russian 1, 2, 10, 11 are offered occasionally upon sufficient demand.

1-2 ELEMENTARY I and II

The aim of the course is to acquire the fundamentals of the language with a view to using them. Regular practice in speaking, understanding and reading.

10 INTERMEDIATE I

Review and development of the fundamentals of the language for immediate use in speaking, understanding and reading with a view to building confidence in self-expression. *Prerequisite: Russian 2 or equivalent.*

11 INTERMEDIATE II

Intensive reading of selected short stories or other works: outside reading, oral and written reports on everyday topics. *Prerequisite: Russian 10 or equivalent.*

SPANISH

A major consists of eight courses numbered 10 or above, including at least one numbered 40 or above. Foreign Languages and Literatures 38 may be included. Normally, Foreign Languages and Literatures 25 does not count toward the major.

All majors who wish to be certified for teaching must pass Foreign Languages and Literatures 38, Spanish 31, and one from 33, 34, or 35. A language proficiency test is required of these students during their senior year.

1-2 ELEMENTARY

Aim of course is to acquire the fundamentals of the language with a view to using them. Regular practice in speaking, understanding, and reading.

10-11 INTERMEDIATE

Review and development of fundamentals of the language for immediate use in speaking, understanding, and reading with a view to building confidence in self-expression. *Prerequisite: Spanish 2 or equivalent.*

20 ADVANCED

The purpose of this course is to improve the student's ability in spontaneous conversations, focusing on everyday activities and matters of current concern as suggested in readings from Latin American and peninsular sources. Vocabulary building is stressed. *Prerequisite: Spanish 11 or equivalent.*

28 CONTEMPORARY HISPANIC LIFE

To introduce students to the Spanish people—their values, customs, and institutions, with reference to the major socio-economic, political, and artistic forces governing present-day Spain. Readings will include selections from periodical literature as well as historical and literary texts. Lectures in English.

English Section: Not applicable toward satisfying the Foreign Language Distribution requirement. *Prerequisite: None.*

Spanish Section: Students with sufficient language skill wishing to take this course for credit towards the Foreign Language distribution requirement will be given special readings and other assignments in Spanish. *Prerequisite: Spanish 11 or equivalent competency as determined by the department.*

31 SPANISH GRAMMATICAL STRUCTURE

Study of intonation, complex grammatical rules and their practical application, and a brief survey of the development of the language. *Recommended for all majors.*

33 SURVEY OF SPANISH LITERATURE AND CIVILIZATION I

Designed to acquaint the student with important periods of Spanish literature, representative authors, and major socio-economic developments. The course deals with the literature from the beginning through the 17th Century. *Open to students majoring in other departments after consultation with instructor. Alternate years.*

34 SURVEY OF SPANISH LITERATURE AND CIVILIZATION II

Designed to acquaint the student with important periods of Spanish literature, representative authors, and major socio-economic developments. The course deals with the literature from the 18th Century to the present. *Open to students majoring in other departments after consultation with the instructor. Alternate years.*

35 SURVEY OF SPANISH AMERICAN LITERATURE AND CIVILIZATION

Designed to acquaint the student with important periods of Spanish-American literature, representative authors, and major socio-economic developments. The course deals with the literature, especially the essay and poetry, from 16th Century to present. *Prerequisite: Consent of instructor. Alternate years.*

44 SPANISH LITERATURE OF THE GOLDEN AGE

A study of representative works and principal literary figures in the poetry, prose, and drama of the 16th and 17th Centuries, from Fernando de Rojas to Calderon. *Prerequisite: Consent of instructor. Alternate years.*

47 19TH CENTURY NOVEL

Regionalism, realism, and naturalism in prose fiction, with emphasis on the works of Galdos. *Prerequisite: Consent of instructor. Alternate years.*

48 THE GENERATION OF '98

Principal literary figures of the early 20th Century: Unamuno, Azorin, Valle Inclan, Baroja, Benavente, Machado, Jimenez, etc. *Prerequisite: Consent of instructor. Alternate years.*

49 SPANISH AMERICAN NOVEL

Twentieth Century novelists from Azuela to Garcia Marquez. *Prerequisite: Consent of instructor. Alternate years.*

70-79 INTERNSHIP (See Index)

80-89 INDEPENDENT STUDY (See Index)

Recent studies include literary, linguistic, and cultural topics, and themes such as urban problems as reflected in the modern novel.

90-99 INDEPENDENT STUDY FOR DEPARTMENTAL HONORS (See Index)

HISTORY

Associate Professor: Larson (Chairman), Piper
Assistant Professor: Morris

A major consists of ten courses, including 10, 11 and 45. At least seven courses must be taken in the department. The following courses may be counted toward fulfilling the major requirements: American Studies 10, Political Science 39,

Religion 28 and 46. Other appropriate courses outside the department may be counted upon departmental approval. For History majors who student teach in history, the major consists of nine courses. In addition to the courses listed below, special courses, independent study and honors are available. Special courses recently taught and anticipated include a biographical study of European Monarchs, the European Left, the Industrialization and Urbanization of Modern Europe, Utopian Movements in America, the Peace Movement in America, The Vietnam War, and American Legal History. History majors are encouraged to participate in the internship program.

10 EUROPE 1500-1815

An examination of the political, social, cultural and intellectual history of Europe and its relations with other areas of the world from 1500 to 1815.

11 EUROPE 1815-Present

An examination of the political, social, cultural, and intellectual history of Europe and its relations with other areas of the world from 1815 to the present.

12 UNITED STATES HISTORY 1603-1877

A study of the men, measures, and movements which have been significant in the development of the United States between 1603 and 1877. Attention is paid to the problems of minority groups as well as to majority and national influences.

13 UNITED STATES HISTORY 1877-present

A study of the men, measures, and movements which have been significant in the development of the United States since 1877. Attention is paid to the problems of minority groups as well as to majority and national influences.

20 ANCIENT HISTORY

A study of the ancient western world, including the foundations of the western tradition in Greece, the emergence and expansion of the Roman state, its experience as a Republic, and its transformation into the Empire. The course will focus on the social and intellectual life of Greece and Rome as well as political and economic changes. *Alternate years.*

22 MEDIEVAL EUROPE AND ITS NEIGHBORS

The history of Europe from the dissolution of the Roman Empire to the mid-fifteenth century. The course will deal with the growing estrangement of western Catholic Europe from the Byzantium and Islam, culminating in the Crusades; the rise of the Islamic Empire and its later fragmentation; the development and growth of feudalism; the conflict of empire and papacy, and the rise of towns. *Alternate years.*

23 20TH CENTURY EUROPE TO 1929

An intensive study of various aspects of the political, economic, social, and intellectual history of Europe from 1900 to 1929. Topics include the irrationalist movement, the causes of imperialism, the origins of the First World War, the Russian Revolution and establishment of the Soviet Regime, and the attempts at peacemaking after 1918. *Prerequisite: History 11 or consent of instructor. Alternate years.*

24 20TH CENTURY EUROPE SINCE 1929

An intensive study of various aspects of the political, economic, social, and intellectual history of Europe from 1929 to the present. Topics include the nature of fascism, development of Stalinist Russia, outbreak of World War II, origins of the Cold War, and the economic reconstruction and integration of Western Europe since 1945. *Prerequisite: History 11 or consent of instructor. Alternate years.*

25 FRENCH REVOLUTION AND NAPOLEON

An analysis of the political, social, and intellectual background of the French Revolution, a survey of the course of revolutionary development, and an estimate of the results of the Napoleonic conquests and administration. *Prerequisite: History 10 or consent of instructor. Alternate years.*

26 COLONIAL AMERICA AND THE REVOLUTIONARY ERA

The establishment of British settlements on the American continent, their history as colonies, the causes and events of the American Revolution, the critical period following independence, and proposal and adoption of the United States Constitution. *Alternate years.*

27 20TH CENTURY UNITED STATES

This course begins with the Progressive Era and includes the political, economic, and social developments in the 20th Century. Emphasis will be placed on the domestic and international demands which have faced the United States in the period following World War II.

28 AFRO-AMERICAN HISTORY

A study of the experiences and participation of Afro-Americans in the United States. The course includes historical experiences such as slavery, abolition, reconstruction, and urbanization. It also raises the issue of the development and growth of white racism, and the effect of this racism on contemporary Afro-American social, intellectual and political life. *Alternate years.*

29 LATIN AMERICAN HISTORY

An examination of the native civilization, the age of discovery and conquest, Spanish colonial policy, the independence movements, and the development of modern institutions and governments in Latin America. *Alternate years.*

31 HISTORY OF RUSSIA

A survey of Russian history emphasizing the rise of Moscovy and the reasons for the failure of the Tzarist regime to overcome successfully the challenge of the modern world. *Prerequisite: History 11 or consent of instructor. Alternate years.*

32 HISTORY OF THE SOVIET UNION

An intensive study of the political, economic, and social history of the Soviet Union emphasizing the reasons for the Bolshevik victory, 1917-21, the origins and nature of the Stalinist regime, Soviet industrialization, and the development of post-Stalinist Russia. *Prerequisite: History 11 or consent of instructor. Alternate years.*

33 CONFLICT IN WESTERN CIVILIZATION

An in-depth study of the changing nature of war and its relationship to the development of Western Civilization since the end of the Middle Ages. Particular emphasis will be placed on the role of war in the development of the modern nation state and the origins and nature of total war. *Alternate years.*

34 DIPLOMATIC HISTORY OF EUROPE SINCE 1789

A survey of the development of the European states system and the relations between the European states since the beginning of the French Revolution. *Prerequisite: History 11 or consent of instructor. Alternate years.*

35 THE CRISIS OF LIBERALISM AND NATIONALISM, EUROPE 1848-1870

An in-depth investigation of the crucial "Middle Years" of Nineteenth Century Europe from the revolutions of 1848 through the unification of Germany. The course centers on the struggles for power within the major

states of Europe at this time and how the vehicle of nationalism was used to bring about one type of solution. *Alternate years.*

37 AGE OF JEFFERSON AND JACKSON

The theme of the course is the emergence of the political and social characteristics that shaped modern America. The personalities of Thomas Jefferson, John Marshall, John Randolph, Aaron Burr, and Andrew Jackson receive special attention. Special consideration is given to the first and second party systems, the decline in community cohesiveness, the westward movement, and the growing importance of the family as a unit of social organization. *Alternate years.*

38 CIVIL WAR AND RECONSTRUCTION

The problems and events leading to war, the political and military history of the war, and the bitter aftermath to the Compromise of 1877.

39 20TH CENTURY UNITED STATES RELIGION

The study of historical and cultural developments in American society which relates to religion or is commonly called religion. This involves consideration of the institutional and intellectual development of several faith groups as well as discussion of certain problems, such as the persistence of religious bigotry and the changing modes of Church-State relationships. *Alternate years.*

40 HISTORY OF RENAISSANCE THOUGHT

A study of the classical, humanist, and scholastic elements involved in the development of the Renaissance outlook views, and values, both in Italy and in Northern Europe. The various combinations of social and political circumstances which constitute the historical context of these intellectual developments will be noted. *Alternate years.*

41 HISTORY OF REFORMATION THOUGHT

A study of the ideas and systems of ideas propounded prior to the Reformation but which are historically related to its inception and of the ideas and systems of ideas involved in the formation of the major Reformation, Protestant traditions and in the Catholic Reformation. Included are the ideas of the humanists of the Reformation Era. *Alternate years.*

42 UNITED STATES SOCIAL AND INTELLECTUAL HISTORY TO 1877

A study of the social and intellectual experience of the United States from its colonial antecedents through reconstruction. Among the topics considered are Puritanism, Transcendentalism, Community Life and Organization, Education and Social Reform Movements. *Prerequisite: 2 courses from History 12, 13, 28 or consent of instructor.*

43 UNITED STATES SOCIAL AND INTELLECTUAL HISTORY SINCE 1877

A study of the social and intellectual experience of the United States from reconstruction to the present day. Among the topics considered are Social Darwinism, Pragmatism, Community Life and Organization, Education and

Social Reform Movements. *Prerequisite: 2 courses from History 12, 13, 28 or consent of instructor.*

45 HISTORICAL METHODS

This course focuses on the nature and meaning of history. It will open to the student different historical approaches and will provide the opportunity to explore these approaches in terms of particular topics and periods. Majors are required to enroll in this course in either their Junior or Senior year. The course is open to other students who have two courses in history or consent of the instructor.

70-79 INTERNSHIP (See Index)

Typically, history interns work for local government agencies engaged in historical projects or in the County Historical Museum.

80-89 INDEPENDENT STUDY (See Index)

Recent topics include studies of the immigration of American blacks, political dissension in the Weimer Republic, Indian relations before the American Revolution and the history of Lycoming County.

90-99 INDEPENDENT STUDY FOR DEPARTMENTAL HONORS (See Index)

Two recent projects were the Germans in Pennsylvania Politics, 1878-1938 and the Reign of Tiglath Pileser I (1116-1075B.C.).

INTERNATIONAL STUDIES

Associate Professor: Larson (Coordinator)

This major in International Studies is designed to integrate an understanding of the changing social, political, and historical environment of Europe today with study of Europe in its relations to the rest of the world, particularly the United States. It stresses the international relations of the North Atlantic Community and offers the student opportunity to emphasize either European studies or international relations. The program provides multiple perspectives on the cultural traits that shape popular attitudes and institutions. Study of a single country is included as a data-base for comparisons, and study of its language as a basis for direct communication with its people.

The program is intended to prepare a student either for graduate study or for careers which have an international component. International obligations are increasingly assumed by governmental agencies and a wide range of business, social, religious, and educational organizations. Opportunities are found in the fields of journalism, publishing, communications, trade, banking, advertising, management, and tourism. The program also offers flexible career preparation in a variety of essential skills, such as research, data analysis, report writing, language skills, and the awareness necessary for dealing with people and institutions of another culture. Preparation for related careers can be obtained through the guided selection of courses outside the major in the areas of Business, Economics, Foreign Languages and Literatures. Government, History, and

International Relations; or through a second major. Students should design their programs in consultation with members of the committee on International Studies.

By completing 6-8 additional courses in the social sciences (which include those courses needed to complete a major in Economics, History, Political, Science or Sociology/Anthropology) and the required program in Education, students can be certified for the teacher education program in Social Studies. By completing a major in the foreign language (5 or more courses) and the Education program, students can be certified to teach that language. The International Studies program also encourages participation in study abroad programs, as well as the Washington International Semester, and the United Nations Semester.

The major includes eleven courses selected as follows:

International Relations Courses—Four or two courses (if two, then four must be taken from Area Courses). Courses within this group are designed to provide a basic understanding of the international system and of Europe's relations with the rest of the world. Political Science 25 is required.

Political Science 25 World Politics
Economics 43 International Trade
History 34 European Diplomatic History
Political Science 39 American Foreign Policy

Area Courses—Four or two courses (if two, then four must be taken from International Relations Courses). Courses within this group are designed to provide a basic understanding of the European political, social, and economic environment. History 11 and Economics 22 are required.

History 11 Europe 1815-Present
Economics 22 Economic Systems of the West
Political Science 20 European Politics
History 23 20th Century Europe to 1929
History 24 20th Century Europe Since 1929

National Courses

Language—Two courses in one language.

French 20, plus one course numbered 23 or above (except 28)
German 20, plus one course numbered 31 or above
Spanish 20, plus one course numbered 31 or above

Country—One course. The student must select, according to his or her language preparation, one European country which will serve as a special interest area throughout the program. The country selected will serve as the base for individual projects in the major courses, wherever possible.

France—French 28 Modern France
Germany—History 80 Topics in German History
Spain—Spanish 28 Contemporary Hispanic Life

Elective Course—One course which should involve further study of some aspect of the program. Appropriate courses are any Area or International Relations Courses not yet taken: History 10, 32, 33; Economics 23, 45; Political Science 26, 27, 38, 46; related foreign literature courses counting toward the Fine Arts requirement, and internships.

49 SENIOR SEMINAR

A one-semester seminar, taken in the senior year, in which students and

several faculty members will pursue an integrative topic in the field of International Studies. Students will work to some extent independently. Guest speakers will be invited. The seminar will be open to qualified persons from outside the major and the college. *Prerequisite: Consent of the instructor.*

LITERATURE

Associate Professor: Maples (Coordinator)

This major recognizes literature as a distinct discipline beyond national boundaries and combines the study of any two literatures in the areas of English, French, German and Spanish. Students can thus explore two literatures widely and intensively at the upper levels of course offerings within each of the respective departments while developing and applying skills in foreign languages. The major prepares students for graduate study in either of the two literatures studied or in Comparative Literature.

The major requires at least six literature courses, equally divided between the two literatures concerned. The six must be at the advanced level as determined in consultation with advisors (normally courses numbered 20 and above in English and 40 and above in Foreign Languages). In general, two of the advanced courses in each literature should be period courses. The third course, taken either as a regular course or as independent study, may have as its subject another period, a particular author, genre, or literary theme, or some other unifying approach or idea. Beyond these six, the major must include at least two additional courses from among those counting toward a major in the departments involved. Any prerequisite courses in the respective departments (for example, English 14, 15, 16, 17, French 23, German 33, 34) should be taken during the Freshman and Sophomore years. Students should design their programs in consultation with a faculty member from each of the literatures concerned. Programs for the major must be approved by the departments involved.

MASS COMMUNICATIONS

Associate Professor: Madden (Coordinator)

The major in Mass Communications offers a liberal arts background and a professional sequence through a combination of courses from the departments of Art, Business Administration, English, Political Science, Sociology-Anthropology and the Broadcasting and Graphic Arts departments of the Williamsport Area Community College. The program assures a broadly based academic foundation with special competency in a selected concentration, plus career orientation in a specific area.

Students must:

1. Successfully complete one of the following sequences:

   Advertising
   Advertising Design-Photography
   Broadcast Journalism
   Newspaper
   Public Relations

2. Take a concentration of at least four courses related to the student's program in a single department of the college, in consultation with the chairman of that department. If the student concentrates in a department represented in the sequence chosen, the student must take at least three courses which are not included in that sequence.

3. Successully complete an internship or independent study related to the sequence chosen.

Advertising Sequence:

Comm. 10	Introduction to Mass Communications
Bus. 28-29	Marketing Management
Bus. 32	Advertising
Bus. 47	Creative Advertising
P.S. 48	Public Opinion and Polling *or*
Soc. 47	Research Methods
GCO 511	Layout and Design
GCO 512	Typographic Composition

Choose two courses from the following with consent of advisor:
Art 11, Art 27, Eng. 18 or 22, Eng. 35 *or* Eng. 36, Eng. 34 or Theatre 11.

Advertising Design-Photography Sequence:

Comm. 10	Introduction to Mass Communications
Art 11	Drawing
Art 15	Two-dimensional Design
Art 12	Color Theory
Art 27	Photography
Bus. 32	Advertising Principles
GCO 511	Layout and Design
GCO 512	Typographic Composition
GCO 521	Process Camera

Choose two courses from the following with consent of advisor:
Art 18, Art 37, Art 21, Bus. 47, Eng. 35 *or* Eng. 36, Eng. 34 or Theatre 11.

Broadcast Journalism Sequence:

Comm. 10	Introduction to Mass Communications
Eng. 24	News Writing for Radio and TV
P.S. 34	Political News Writing
P.S. 48	Public Opinion and Polling
Thea. 1	Principles of Oral Communication
BRC 242	Station Management and Community Responsibility
BRC 112	Basic Electronics and FCC Licensing

Choose two courses from the following with consent of advisor:
Art 27, P.S. 11, P.S. 32, Psych. 24, Soc. 34, Eng. 34 or Theatre 11.

Newspaper Sequence:

Comm. 10	Introduction to Mass Communications
Eng. 23	News Writing for the Print Media
P.S. 34	Political News Writing
P.S. 11	State and Local Government
P.S. 48	Public Opinion and Polling
Art 27	Photography
GCO 512	Typographic Composition

Choose two courses from the following with consent of advisor:
Art 37, Eng. 18 or Eng. 22, Eng. 24, P.S. 32, Psych. 24, Soc. 34, Eng. 34 or Theatre 11.

Public Relations Sequence:

Comm. 10	Introduction to Mass Communications
Eng. 23	News Writing for the Print Media
Eng. 37	Public Relations and Publicity
Bus. 28-29	Marketing Management
P.S. 48	Public Opinion and Polling *or*
Soc. 47	Research Methods
Art 27	Photography

Choose two courses from the following with consent of advisor:
Art 37, Bus. 32, Eng. 18 or Eng. 22, Eng. 24, Psych. 24, Eng. 34 or Thea. 11.

10 INTRODUCTION TO MASS COMMUNICATIONS

Part I: Theories of the process of mass communications and introduction to the mass media; attention will be given to problems of censorship and media ethics. Part 2: Analysis of the mass media's impact on society; emphasis will be placed on the social, psychological and political implications of the media's shaping influence on man and institutions.

70-79 INTERNSHIP (See Index)

Interns usually work off campus in a field related to their communications sequence; some may work with the student newspaper or radio station.

80-89 INDEPENDENT STUDY (See Index)

Studies involve research related to the communications sequence of the student.

90-99 INDEPENDENT STUDY FOR DEPARTMENTAL HONORS (See Index)

Through special arrangement, the following courses offered at the Williamsport Area Community College are available to students in the Mass Communications major *only*. The WACC courses are taken as part of the student's semester schedule and are listed with Lycoming offerings during registration periods.

GRAPHIC ARTS

511 LAYOUT AND DESIGN

Analysis of materials, tools, and techniques used in preparation of copy for reproduction; Paste-up and color separation overlays. 4 Cr.

512 TYPOGRAPHIC COMPOSITION

Fundamentals of typesetting. Theory and practice in the care and use of composing machines, both hot and cold (mechanical) and cold (photo). 4 Cr.

521 PROCESS CAMERA

Concepts and techniques of darkroom procedure for reproduction of line and halftone copy on process camera. 4 Cr.

BROADCASTING

112 BASIC ELECTRONICS AND FCC LICENSING

Fundamental mechanics of operation of tape recorders, turntables, network facilities and multispeaker systems; mechanics necessary to obtain FCC licensing; field visits to at least five different stations. 3 Cr.

242 STATION MANAGEMENT AND COMMUNITY RESPONSIBILITY

Study of problems related to serving community needs while making a profit; ratio of advertising to program time; character of station; meeting community responsibility through community interest programs; responsible use of editorial privilege. 3 Cr.

MATHEMATICS

Associate Professor: Getchell, Hubbard (Chairman)
Assistant Professor: Foreman, Henninger
Instructor: Troxel
Visiting Instructor: Murphy
Part-time Instructor: Somers

A major consists of ten courses numbered 10 or above: Mathematics 18, 19, 20, 24, 34, 42 and three other courses numbered above 20 must be included. Students seeking secondary certification in mathematics are required to complete Mathematics 30 and 36 and are advised to enroll in Philosophy 17. In addition, all majors are advised to elect Mathematics 15, Philosophy 20 and 33, and Physics 25 and 26. In addition to the courses listed below, special courses are occasionally available—recent topics include: Graph Theory, Number Theory, Discrete Probability, Data Structures, Computer Graphics, Operations Research, and Finite Differences.

1 CONTINUOUS MODELS

A survey of the central ideas of the infinitesimal calculus, its historical development, and some of its modern applications. *Students with credit for Mathematics 9 or 18 may not receive credit for this course. One-half unit of credit.*

2 COMPUTERS IN SOCIETY

A study of the role of digital computers in society today with primary emphasis on what can be done, rather than how to do it. The main goal of the course is to make the student aware of the growing influence which digital computers are likely to have on society in the near future. *Students with credit for Mathematics 15 may not receive credit for this course. One-half unit of credit.*

5 INDIVIDUALIZED LABORATORY INSTRUCTION IN BASIC ALGEBRA

A self-paced study of arithmetic and decimal numerals, fractions, the real

number line, factoring, solutions to linear and quadratic equations, graphs of linear and quadratic functions, expressions with rational exponents, algebraic functions, exponential functions, and inequalities. THIS COURSE IS LIMITED TO STUDENTS PLACED THEREIN BY THE MATHEMATICS DEPARTMENT. *One-half unit of credit.*

7 MODERN ELEMENTARY GEOMETRY AND NUMBER THEORY

This course is intended for prospective elementary school teachers and is required of all those seeking elementary certification. Topics include the development of the real number system and its larger subsystems, computational algorithms, axiomatic systems, measurement, shape and symmetry. *Co-requisite: Any Education course numbered 30 or above which is specifically required for Elementary Certification and application to the Elementary Professional Semester, or consent of instructor.*

9 INTRODUCTION TO CALCULUS

An intuitive approach to the calculus concepts with applications to business, biology, and social science problems. Not open to students who have completed Mathematics 18. *Prerequisite: Credit for or exemption from Mathematics 5. Alternate years.*

12 FINITE MATHEMATICS FOR DECISION MAKING

An introduction to some of the principal mathematical models, not involving calculus, which are used in Business Administration, social sciences, and operations research. The course will include both deterministic models, such as graphs, networks, linear programming and voting models and probabilistic models such as Markov chains and games. *Prerequisite: credit for or exemption from Mathematics 5.*

13 INTRODUCTION TO STATISTICS

Describing, distributions of measurements, probability and random variables, binomial and normal probability distributions, statistical inference from small samples, linear regression and correlation, analysis of enumerative data. *Prerequisite: credit for or exemption from Mathematics 5.*

14 MULTIVARIATE STATISTICS

The study of statistical techniques used in experimental designs involving more than two random variables. Techniques would include analysis of variance, analysis of covariance, multiple regression and correlation, introduction to factor analysis and introduction to discriminative analysis. Extensive use of the IBM 1130 Computer as a problem solving tool will be included. *One-half unit of credit. Prerequisite: Math 13.*

15 COMPUTER SCIENCE

Study of mathematics relevant to computing. A survey of machine and symbolic programming. Introduction to FORTRAN IV programming. Includes laboratory experience on an IBM 1130. *Prerequisite: credit for or exemption from Mathematics 5.*

17 PRECALCULUS MATHEMATICS

The study of logarithmic, exponential, trigonometric, polynomial and rational functions, their graphs and elementary properties. *Prerequisite: credit for or exemption from Mathematics 5.*

18 CALCULUS WITH ANALYTIC GEOMETRY I

Differentiation of algebraic functions, graphing plane curves, applications to related rate and extremal problems, integration of algebraic functions, areas of plane regions, volumes of solids of revolution, and other applications. *Prerequisite: A grade of C or better in Mathematics 17 or its equivalent, or consent of instructor.*

19 CALCULUS WITH ANALYTIC GEOMETRY II

Differentiation and integration of transcendental functions, parametric equations, polar coordinates, the conic sections and their applications, infinite sequences and series expansions. *Prerequisite: A grade of C or better in Mathematics 18 or consent of instructor.*

20 MULTIVARIATE CALCULUS WITH MATRIX ALGEBRA

Vectors, linear transformations and their matrix representations, determinants, matrix inversion, solutions to systems of linear equations, differentiation and integration of multivariate functions, vector field theory and applications. *Prerequisite: A grade of C or better in Mathematics 19, or consent of instructor.*

21 DIFFERENTIAL EQUATIONS

A study of ordinary differential equations and their applications: first order linear differential equations, the Picard Existence Theorem, solution by separation of variables, solution by numerical methods; second order linear differential equations, solution by variation of parameters, solution by power series, solution by Laplace transforms; systems of first order equations, solutions by eigenvalues; qualitative theory, stability theory, asymptotic behavior, and the Poincare-Bendixon theorem. Besides the usual applications in physics and engineering, considerable attention will be given to modern applications in the social and life sciences. *Prerequisite: A grade of C or better in Mathematics 19, or consent of instructor. Alternate years.*

23 COMPLEX VARIABLES

Complex numbers, analytic functions, complex integration, Cauchy's theorems, and their applications. *Co-requisite: Mathematics 20. Alternate years.*

24 FOUNDATIONS OF MATHEMATICS

Topics regularly included are the nature of mathematical systems, essentials of logical reasoning, and axiomatic foundations of set theory. Other topics frequently included are approaches to the concepts of infinity and continuity, and the construction of the real number system. The course serves as a bridge from the elementary calculus to advanced courses in algebra and analysis. *Prerequisite: Mathematics 19, or consent of instructor.*

30 TOPICS IN GEOMETRY

An axiomatic treatment of Euclidean geometry, and an introduction to related geometries. *Prerequisite: Mathematics 18. Alternate years.*

31 INTRODUCTION TO NUMERICAL ANALYSIS

Study and analysis of tabulated data leading to interpolation, numerical integration, numerical solutions of differential equations and systems of equations. *Co-requisite: Mathematics 20. Prerequisite: Mathematics 15. Alternate years.*

32-33 MATHEMATICAL STATISTICS I-II

A study of probability, discrete and continuous random variables, expected values and moments, sampling, point estimation, sampling distributions, interval estimation, test of hypotheses, regression and linear hypotheses, experimental design models. *Prerequisite: Mathematics 19. Alternate years.*

34 MODERN ALGEBRA

An integrated approach to groups, rings, fields and vector spaces, and functions which preserve their structure. *Prerequisite: Mathematics 24.*

36 CONCEPTS OF MATHEMATICS IN SECONDARY EDUCATION

A course designed for mathematics majors who are planning to teach at the secondary level. Emphasis will be placed on the mathematics that forms the foundation of secondary mathematics. Ideas will be presented to familiarize the student with various curriculum proposals, to provide for innovation within the existing curriculum and to expand the boundaries of the existing curriculum. *Open only to junior and senior math majors enrolled in the secondary education program. Alternate years.*

37 COMPUTATIONAL MATRIX ALGEBRA

An introduction to some of the algorithms which have been developed for producing numerical solutions to such linear algebraic problems as solving systems of linear equations, inverting matrices, computing the eigenvalues of a matrix, and solving the linear least squares problem. *Prerequisite: Mathematics 15 and 20 or consent of instructor. Alternate years.*

42 REAL ANALYSIS

A rigorous analysis of the basic concepts of real variable calculus; the real number system as a complete, ordered field; the topology of Euclidean space, compact sets, the Heine-Borel Theorem; continuity; the Intermediate Value Theorem; derivatives, the Mean Value Theorem; Riemann integrals, the Fundamental Theorem of Calculus; infinite series, and Taylor's theorem. *Prerequisite: Mathematics 24.*

48 SEMINAR

Topics in modern mathematics of current interest to the instructor. A different topic is selected each semester. This seminar is designed to provide junior and senior mathematics majors and other qualified students with more

than the usual opportunity for concentrated and cooperative inquiry. *Prerequisite: Consent of the instructor. One-half unit of credit. This course may be repeated for credit.*

70-79 INTERNSHIP (See Index)

Interns with computer science and statistics background have helped other institutions do research on their data.

80-89 INDEPENDENT STUDY (See Index)

The department will consider any topic of interest to a qualified student. Recently completed studies focused on data structures, computer graphics, designs of geodesic domes and integer programming.

90-99 INDEPENDENT STUDY FOR DEPARTMENTAL HONORS (See Index)

One student produced an Honors paper entitled "Construction of Rings from Bounded Modular Lattices." This project helped prepare the student for graduate study in mathematics.

MUSIC

Assistant Professors: Boerckel, Jex, Thayer (Chairman)
Part-Time Instructors: McIver, Nacinovich, Nagel, Russell, Serang, Veley

The music major is required to take a balanced program of theory, applied music, music history, and music ensemble. A minimum of eight courses (exclusive of applied music and ensemble) is required, and these must include Music 10, 11, 15, 32, and any two from 35, 36, 45, 46. Each major must participate in an ensemble (Music 68 and/or 69) and take one hour of applied music per week. (See Music 60-66) The major must include piano in the applied program unless a piano proficiency test is requested and passed.

10-11 MUSIC THEORY I AND II

A two-semester course for the major or non-major wishing to develop musicianship through the study of harmony, ear-training, and sight-singing. *(Music 10 is prerequisite to Music 11)*

15 INTRODUCTION TO MUSIC

An introduction to traditional serious music for those with or without music training. This is basically a non-technical course for majors and non-majors, and is concerned with representative composers, compositions, style periods, and forms. Class time is largely devoted to guided listening, and outside assignments consist mostly of readings with some listening.

18 AMERICAN MUSIC I

For the major or non-major interested in studying all types of American music, from pre-Revolutionary days through World War I. Areas explored will include Indian, African, and European roots influencing the serious music for small and large ensembles, the development of show music from

minstrels to Broadway musicals, the evolution of "Tin Pan Alley", and the beginnings of jazz. *Alternate years.*

19 AMERICAN MUSIC II

For the major or non-major interested in studying all types of American Music. American Music II will cover post-World War I days to the present. Areas explored will include indigenous serious music for small and large ensembles, the mature Broadway musical, the evolution of jazz, the development of rock, and the fusion of musical styles in the 1970's. *Alternate years.*

20-21 MUSIC THEORY III AND IV

A continuation of the integrated theory course moving toward newer uses of music materials. *Prerequisite: Music 11. Alternate years.*

28 COUNTERPOINT

A study of the five species in two, three, and four-part writing. *Alternate years.*

29 ORCHESTRATION

A study of modern orchestral instruments, and examination of their use by the great masters with practical problems in instrumentation. *Alternate years.*

30 COMPOSITION

Creative writing in smaller vocal and instrumental forms. The college music organizations serve to make performance possible. *Alternate years.*

31 CONDUCTING

A study of the fundamentals of conducting with frequent opportunity for practical experience. *Alternate years.*

32 ELECTRONIC MUSIC I

Largely a non-technical introduction to electronic music designed for the major and non-major alike. The course traces the development of electronic music, introduces the student to simple tape-splicing and recorder manipulation, and progresses to the present-day synthesizer and multi-track techniques. Students will work collectively and individually in the electronic studios.

33 ELECTRONIC MUSIC II

An in-depth study of the Moog synthesizer including alternating and direct current, signal generators, and the characteristics of their waveforms, control voltage and its sources, the transient and periodic modulations. Basic mixing and filtering techniques will be examined. Students will be assigned studio hours to complete the recording assignments. *Prerequisite: Music 32.*

35 MUSIC HISTORY TO J. S. BACH

A study of our music from its roots to the early 18th Century, with particular emphasis on late Medieval, Renaissance, and the early and middle Baroque. *Prerequisite: Music 15. Alternate years.*

36 MUSIC HISTORY OF THE 18TH CENTURY

The late Baroque, Rococo, and Classical periods are examined with particular emphasis on J. S. Bach, Handel, Mozart, Haydn, and early Beethoven as well as Corelli, Vivaldi, the sons of Bach and the French school. *Prerequisite: Music 15. Alternate years.*

42 ELECTRONIC MUSIC III

An introduction to acoustic theory, echo technique, location modulation, application of equalization, phasing, and microphones. The student will write and perform an electronic composition utilizing real-time networks. *Prerequisite: Music 33. Alternate years.*

43 ELECTRONIC MUSIC IV

A study of major compositions and genres of electronic music. The student will complete an original composition based upon a study of these techniques and forms. *Prerequisite: Music 42. Alternate years.*

45 MUSIC OF THE 19TH CENTURY

A study of the music of the Romantic period with emphasis on Beethoven, Schubert, Chopin, Berlioz, Liszt, Schumann, Brahms, Wagner, Verdi, Tchaikovsky and others. Close examination of short lyric forms, program music, opera, and the sonata genre. *Prerequisite: Music 15. Alternate years.*

46 MUSIC OF THE 20TH CENTURY

Beginning with Debussy, Strauss, Mahler, and Sibelius, the course traces some of the main currents in the music of our time. Emphasis given to such composers as Stravinsky, Bartok, Ives, Shostakovich, Berg, Gershwin, and others. *Prerequisite: Music 15. Alternate years.*

APPLIED MUSIC AND ENSEMBLE

The study of performance in Piano, Voice, Organ, Strings, Woodwinds, and Percussion is designed to develop sound technique and a knowledge of the appropriate literature for the instrument. Student recitals offer opportunities to gain experience in public performance. Music majors and other students qualified in performance may present formal recitals.

Credit for Applied Music courses (private lessons) and ensemble (choir and band) is earned on a fractional basis. For a description of this, see page 16. An applied course or ensemble should NOT be substituted for an academic course, but should in every case be in addition to the normal four academic courses. Extra fees apply for private lessons (Music 60-66) as follows: $75 per semester for a half-hour lesson per week, and $150 per semester for an hour lesson per week. Private lessons are given for thirteen weeks.

60 Piano	62 Strings	64 Brass	66 Percussion
61 Voice	63 Organ	65 Woodwinds	

68 CHORAL ENSEMBLE (CHOIR)

Participation in the college choir is designed to enable any student possessing at least average talent an opportunity to study choral technique. Emphasis is placed upon acquaintance with choral literature, tone production, diction, and phrasing. Students desiring credit for choir are allowed a maximum of one hour per semester. A student who is enrolled in choir and not band should elect Music 68-B (one hour credit). Students enrolled in *both* band and choir should elect 68-A and 69-A (½ hr. in each).

69 INSTRUMENTAL ENSEMBLE (BAND)

The college band allows students with some instrumental experience to become acquainted with good band literature and develop personal musicianship through participation in group instrumental activity. Students desiring credit for ensemble are allowed a maximum of one hour per semester. A student who is enrolled in band, but not choir, should elect Music 69-B (one hour credit). A student enrolled in *both* band and choir should elect 68-A and 69-B (½ hr. in each).

70-79 INTERNSHIP (See Index)

80-89 INDEPENDENT STUDY (See Index)

90-99 INDEPENDENT STUDY FOR DEPARTMENTAL HONORS

NEAR EAST CULTURE AND ARCHEOLOGY

Professor: Guerra (Coordinator)

The Near East Culture and Archeology interdisciplinary major is designed to acquaint students with the "cradle of Western civilization", both in its ancient and modern aspects. Majors will complete a minimum of eight to ten courses related to the Near East.

Required courses are described in their departmental sections and include:

1. Four courses (semesters) in language and culture from:

   History and Culture of the Ancient Near East (Religion 28)

History of Art (Art 22)
Ancient History (History 20)
Old Testament Faith and History (Religion 13)
Judaism and Islam (Religion 24)
Two semesters of foreign language (Hebrew 1, 2 or Greek 1, 2)

2. Two courses (semesters) in archeology from:
   Bible, Archeology, and Faith (Religion 46)
   Special Archeology courses, such as independent studies or in May Term or summer sessions in the Near East.

3. Two courses (semesters) in the cooperating departments (Art, History, Political Science, Religion, and Sociology and Anthropology) or related departments. These two courses, usually taken in the junior or senior years, can be independent study. Topics should be related either to the ancient or the modern Near East and must be approved in advance by the committee supervising the interdisciplinary program. The study of modern Arabic or Hebrew is encouraged.

Other courses may be suggested by the supervisory committee within the limits of a ten-course major. The number of courses taken within this program applicable toward fulfilling the College distribution requirements will vary according to the selection of courses you make.

PHILOSOPHY

Associate Professor: Griffith
Assistant Professor: Herring (Chairman), Whelan

The study of philosophy develops a critical understanding of the basic concepts and presuppositions around which we organize our thought in science, religion, education, morality, the arts, and other human enterprises. A major in philosophy, together with appropriate other courses, can provide an excellent preparation for policy-making positions of many kinds, for graduate study in several fields, and for careers in education, law, and the ministry. The major in philosophy consists of at least eight courses numbered 10 or above, of which six must be numbered 20 or above and must include 21 or 23, 22 or 24, and 49. In addition to the courses listed below, special courses are often offered.

5 PRACTICAL REASONING

A general introduction to topics in logic and their application to practical reasoning, with primary emphasis on detecting fallacies, evaluating inductive reasoning, and understanding the rudiments of scientific method.

10 INTRODUCTION TO PHILOSOPHICAL PROBLEMS

An introductory course designed to show the nature of philosophy by examination of several examples of problems which have received extended attention in philosophical literature. These topics often include the relation of the mind to the body, the possibility of human freedom, arguments about the existence of God, the conditions of knowledge, and the relation of language to thought. Some attention is also given to the principles of acceptable reasoning.

14 PHILOSOPHY AND PERSONAL CHOICE

An introductory philosophical examination of a number of contemporary moral issues which call for personal decision. Topics often investigated include these: the "good" life, obligation to others, sexual ethics, abortion, suicide and death, violence and pacifism, obedience to the law, the relevance of personal beliefs to morality. Discussion centers on some of the suggestions philosophers have made about how to make such decisions.

15 PHILOSOPHY AND PUBLIC POLICY

An introductory philosophical examination of the moral and conceptual dimension of various contemporary public issues, such as the relation of ethics to politics and the law, the enforcement of morals, the problem of fair distribution of goods and opportunities, the legitimacy to restricting the use of natural resources, and the application of ethics to business practice. Discussion centers on some of the suggestions philosophers have made about how to deal with these issues.

17 PHILOSOPHICAL ISSUES IN EDUCATION

An examination of the basic concepts involved in thought about education, and a consideration of the various methods for justifying educational proposals. Typical of the issues discussed are these: Are education and indoctrination different? What is a liberal education? Are education and schooling compatible? What do we need to learn? *Alternate years.*

18 PHILOSOPHICAL ISSUES IN CRIMINAL JUSTICE

An introductory examination of various philosophical issues and concepts which are of special importance in legal contexts. Discussion includes both general topics such as the justification of punishment, and more specific topics such as the insanity defense and the rights of the accused. Readings are arranged topically, and include both classical and contemporary sources.

19 ETHICAL ISSUES IN BIOLOGY AND MEDICINE

A philosophical investigation of some of the ethical issues which arise as a result of contemporary medical and biological technology. Typical of these issues are euthanasia, behavior control, patient rights, experimentation on humans, fetal research, abortion, genetic engineering, population control, and distribution of health resources.

20 SYMBOLIC LOGIC

A study of modern symbolic logic, and its application to the analysis of arguments. Included are truth-functional relations, the logic of propositional functions, and deductive systems. Attention is also given to various topics in the philosophy of logic.

21 ANCIENT GREEK ETHICAL AND POLITICAL PHILOSOPHY

An examination of the ethical and political views of Socrates, Plato, and Aristotle. Considerable attention is paid to the relationship between these views and the social and intellectual milieu out of which they developed. However, the primary emphasis is on understanding the philosophical

issues raised in selected Aristotelian and Platonic texts. *Prerequisite: Freshmen must have instructor's permission. Alternate years.*

22 HISTORY OF MODERN POLITICAL PHILOSOPHY

An historical survey of the most important social and political philosophers of the modern period. Particular attention is paid to the social contract theories of Hobbes, Locke, and Rousseau, and some consideration will be given to the political philosophies of Hegel, Marx, and Mill. *Prerequisite: Freshmen must have instructor's permission. Alternate years.*

23 ANCIENT GREEK SCIENCE AND METAPHYSICS

An historical survey of the first attempts to understand the physical universe scientifically. Particular attention is paid to the common origins of philosophy and science in the works of the pre-Platonic philosophers, to the question of how scientific and philosophical thinking is distinct from mythological and technological thinking, and to the interaction between philosophy and science in formulating the fundamental problems about the physical universe and in developing and criticizing the various concepts introduced in attempts to solve those problems. *Prerequisite: Freshmen must have instructor's permission. Alternate years.*

24 EARLY MODERN SCIENCE AND METAPHYSICS

An historical survey of the early modern attempt to understand the physical universe. Particular attention is paid to the continuities and discontinuities between early modern science and metaphysics and ancient Greek science and metaphysics, to the rationalism-empiricism dispute in science and metaphysics, and to the interaction between philosophy and science in formulating fundamental questions about the physical universe and in developing and criticizing concepts designed to answer them. *Prerequisite: Freshmen must have instructor's permission. Alternate years.*

31 PHILOSOPHICAL ISSUES IN CONTEMPORARY PSYCHOLOGY

Theories in psychology which attempt to explain human behavior seem to conflict in various ways with religion, with common ideas about morality, and with common-sensical ways of explaining human behavior. This course examines some of those conflicts philosophically. *Prerequisite: Students without previous study in philosophy must have instructor's permission. Alternate years.*

32 PHILOSOPHY OF RELIGION

A philosophical examination of religion. Included are such topics as the nature of religious discourse, arguments for and against the existence of God, and the relation between religion and science. Readings from classical and contemporary sources. *Prerequisite: Students without previous study in philosophy must have instructor's permission. Alternate years.*

33 PHILOSOPHY OF NATURAL SCIENCE

A consideration of philosophically important conceptual problems arising from reflection about natural science, including such topics as the nature of scientific laws and theories, the character of explanation, the import of

prediction, the existence of "non-observable" theoretical entities such as electrons and genes, the problem of justifying induction, and various puzzles associated with probability. *Prerequisite: Students without previous study in philosophy must have instructor's permission. Alternate years.*

34 SOCIAL AND POLITICAL PHILOSOPHY

A systematic philosophical investigation of the relation between human nature and the proper social and political order. Topics studied include the purpose of government, the nature of legitimate authority, the foundation of human rights, and the limits of human freedom. Emphasis is placed on the logic of social and political thought and on the analysis of basic principles and concepts. *Prerequisite: Students without previous study in philosophy must have instructor's permission.*

35 ETHICAL THEORY

An inquiry concerning the grounds which distinguish morally right actions from morally wrong actions. Central to the course is critical consideration of the proposals and the rationale of relativists, egoists, utilitarians, and other ethical theorists. Various topics in metaethics are also included. *Prerequisite: Students without previous study in philosophy must have instructor's permission.*

49 DEPARTMENTAL SEMINAR

An investigation, carried on by discussions and papers, into one philosophical problem, text, philosopher, or movement. A different topic is selected each semester; recent topics include Sidgwick's ethics, religious language, Kierkegaard, legal punishment, Wittgenstein, personal identity, and human rights. This seminar is designed to provide junior and senior philosophy majors and other qualified students with more than the usual opportunity for concentrated and cooperative inquiry. *Prerequisite: Consent of the instructor. This seminar may be repeated for credit.*

70-79 INTERNSHIP (See Index)

80 INDEPENDENT STUDY

Recent independent studies in philosophy include Nietzsche, moral education, Rawls' theory of justice, existentialism, euthanasia, Plato's ethics, and philosophical aesthetics.

90 INDEPENDENT STUDY FOR DEPARTMENTAL HONORS

PHYSICAL EDUCATION

Associate Professor: Burch (Chairman)
Assistant Professor: Whitehill
Instructor: Holmes
Visiting Instructor: Hair

1 PHYSICAL EDUCATION
Coeducational physical education classes. Basic instructions in fundamentals, knowledge, and appreciation of sports that include swimming, tennis,

bowling, volleyball, archery, field hockey, soccer, golf, badminton, modern dance, skiing, elementary games (for elementary teachers), toneastics, physical fitness, and other activities. Orienteering backpacking, cross country skiing, alpine skiing, jogging, and cycling are offered on a contract basis. Beginning swimming is required for all nonswimmers. Students may select any activity offered. A reasonable degree of proficiency is required in the activities in which students choose to participate. Emphasis is on the potential use of activities as recreational and leisure-time interests. Two semesters of physical education (two hours per week) are required. All physical education classes are open to both men and women.

POLITICAL SCIENCE

Associate Professor: Giglio (Chairman), Roskin
Assistant Professor: Grogan

The major is designed to provide a systematic understanding of government and politics at the international, national, state, and local levels. Majors are encouraged to develop their faculties to make independent, objective analyses which can be applied to the broad spectrum of the social sciences.

Although the political science major is not designed as a vocational major, students with such training may go directly into government service, journalism, teaching, or private administrative agencies. A political science major can provide the base for the study of law, or for graduate studies leading to administrative work in federal, state, or local government, international organizations, or college teaching. Students seeking certification to teach secondary school social studies may major in political science but should consult their advisors and the education department.

A major consists of eight political science courses, including Political Science 15 and at least one course in each of the five areas (A to E) below. Students entering the major as juniors or seniors may, with departmental permission, substitute Political Science 20, European Politics, for Political Science 15. To encourage familiarity with other social sciences, at least two courses must be completed from the following: American Studies 10; Business 35 and 36 (recommended for pre-law); Economics 10, 11, 32, 45; History 24, 32, 33, 34; Philosophy 21, 22; Sociology and Anthropology 26, 38.

15 INTRODUCTION TO POLITICS

The behavior and misbehavior of the political animal, man. Why he forms political communities, how he may improve them, and how he may destroy them. *Required of all political science majors; open to a limited number of other interested students.*

A. AMERICAN GOVERNMENT

10 GOVERNMENT AND POLITICS IN THE UNITED STATES

An introduction to American national government which emphasizes both structural-functional analysis and policymaking processes. In addition to the legislative, executive and judicial branches of government, attention will be given to political parties and interest groups, elections and voting behavior, and constitutional rights. Recommended to all Social Science Education majors and to those students who have had inadequate or insufficient preparation in American government.

11 STATE AND LOCAL GOVERNMENT

An examination of the general principles, major problems, and political processes of the states and their subdivisions, together with their role in a federal type of government.

30 THE AMERICAN CONSTITUTIONAL SYSTEM

An analysis of the Supreme Court in the American system of government with some attention paid to judicial decisionmaking. Topics include: judicial review, federalism, constitutional limits on legislative and executive powers, elections and representation. *Alternate years.*

31 CIVIL RIGHTS AND LIBERTIES

What are our rights and liberties as Americans? What should they be? A frank discussion of the nature and scope of the constitutional guarantees. First Amendment rights, the rights of criminal suspects and defendants, racial and sexual equality, and equal protection of the laws. Students will read and brief the more important Supreme Court decisions. *Prerequisite: Junior or Senior standing or consent of the instructor*

33 BUREAUCRACY AND PUBLIC ADMINISTRATION

What is a bureaucracy? Why and how do bureaucracies arise? What has been the political impact of growth of bureaucracy in government? These questions, among others, will be considered in this examination of public bureaucracies. This course is highly recommended to students planning to take an internship in city or county government through the political science department.

B. AMERICAN POLITICS

22 POLITICAL PARTIES AND INTEREST GROUPS

An examination of the history, organization, functions, and methods of American political parties. Special attention is devoted to the role of organized interest groups in the political process. *Alternate years.*

23 AMERICAN PRESIDENCY

A study of the office and powers of the president with analysis of his major roles as chief administrator, legislator, political leader, foreign policy maker, and commander-in-chief. Special attention is given to those presidents who led the nation boldly.

24 THE LEGISLATIVE PROCESS

A study of the role of the legislature in the framework of the national and state governments. Consideration of the influence of the parties, pressure groups, public opinion, constituencies, the "committee system", the "administration" and the constitution in the lawmaking process. *Alternate years.*

28 CONTEMPORARY ISSUES IN PUBLIC POLICY I

An introduction to basic principles of policy analysis, including identification of contemporary public policy problems, alternative solutions,

formal government and other participants in the policy-making process, and evaluation of policy impact. Includes a detailed case-study analysis of one major public policy controversy. This is a ½ unit course (first seven weeks of semester). Students wishing to register in a full unit course should register for both PS 28 *and* PS 29; those wishing to register for a ½ unit course only should register for PS 28. *Alternate years.*

29 CONTEMPORARY ISSUES IN PUBLIC POLICY II

A continuation of PS 28 with an emphasis on the variety of major issues in public policy confronting American government and society. Includes a detailed case-study analysis of one major public policy controversy (will differ from that analyzed in PS 28). This is a ½ unit course (second seven weeks of semester). *Prerequisite: PS 28. Students wishing to register in a full unit course should register for both PS 28 and PS 29. Alternate years.*

32 THE POLITICS OF CITIES AND SUBURBS

An examination of the history, legal basis, power, forms, services, and problems of the cities and their suburbs, with special reference to current experiments in the solution of the problems of metropolitan areas.

C. POLITICAL THEORY AND METHODOLOGY

35 LAW AND SOCIETY

An examination into the nature, sources, functions, and limits of law as an instrument of political and social control. Included for discussion are legal problems pertaining to the family, crime, deviant behavior, poverty, and minority groups. *Prerequisite: Junior or Senior standing or consent of the instructor.*

46 CONTEMPORARY POLITICAL IDEOLOGIES

The growth, development and current status of liberalism, conservatism, nationalism, socialism, communism, and fascism. *Alternate years.*

47 THE AMERICAN POLITICAL TRADITION

An examination of the significant ideas which have shaped the American political tradition from their European origins to the present, with emphasis on the influence of these ideas in the development of American democracy. Special attention will be paid to an analysis of contemporary ideological movements: Black Power, New Left, and Radical Feminism. *Alternate years.*

48 PUBLIC OPINION AND POLLING

A course dealing with the general topic and methodology of polling. Content includes exploration of the processes by which people's political opinions are formed, the manipulation of public opinion through the uses of propaganda, and the American response to politics and political issues.

D. COMPARATIVE POLITICS

20 EUROPEAN POLITICS

A study of the political systems of East and West Europe with emphasis on

comparison and patterns of government. The course will review politics in Northern (Britain, West Germany, Sweden), Latin (France, Italy, Spain) and Eastern (Soviet Union, East Germany, Yugoslavia) Europe and attempt to find underlying similarities and differences.

26 POLITICAL CULTURES

An exploration of the "people" aspects of political life in several countries. The way people interact with each other and with government, what they expect from the system, how they acquire their political attitudes and styles and how these contribute to the type of government. *Alternate years.*

38 POLITICS OF DEVELOPING AREAS

The causes and possible cures for socio-political backwardness in Asia, Africa, and Latin America. *Alternate years.*

E. INTERNATIONAL RELATIONS

25 WORLD POLITICS

Why is there war? An introduction to international relations with emphasis on the varieties of conflicts which may grow into war.

27 CRISIS AREAS IN WORLD POLITICS

The study of several current areas of international tension and conflict, including relations among the United States, Soviet Union and China, plus the Middle East and whatever new danger spots arise over time. *Alternate years.*

39 AMERICAN FOREIGN POLICY

The U.S. role in the world in geographic, strategic, historical, and ideological perspectives, plus an examination of the domestic forces shaping U.S. policy. *Alternate years.*

F. NON-AREA ELECTIVES

34 POLITICAL NEWSWRITING

A workshop course in the reporting and rewriting of public affairs at the local, national and international levels. There will be neither texts nor examinations, but short written assignments will be due every class meeting. *Alternate years.*

G. SPECIAL PROGRAMS

70-79 INTERNSHIPS (See Index)

Students may receive academic credit for serving as interns in structured learning situations with a wide variety of public and private agencies and organizations. Students have served as interns with the Public Defender's Office, the Lycoming County Court Administrator, and the Williamsport City Government.

80-89 INDEPENDENT STUDY (See Index)

Current studies relate to elections—local, state, and federal—while past studies have included Soviet and world politics.

90-99 INDEPENDENT STUDY FOR DEPARTMENTAL HONORS (See Index)

PSYCHOLOGY

Professor: Hancock
Assistant Professor: Berthold (Chairman), Salley
Visiting Professor: Vestermark

A major consists of Psychology 10, 31, 32, 36, and four other psychology courses. Mathematics 13 is also required. In addition to the departmental requirements, majors are urged to include courses in Animal Physiology, Sociology, and the Mathematics option of the distribution requirements.

10 INTRODUCTORY PSYCHOLOGY

An introduction to the empirical study of human and other animal behavior. Areas considered may include: learning, personality, social, physiological, sensory, cognition, and developmental.

15 ORGANIZATIONAL AND INDUSTRIAL PSYCHOLOGY

The application of the principles and methods of pscyhology to selected organizational and industrial situations. *Prerequisite: Psychology 10.*

16 ABNORMAL PSYCHOLOGY

An introduction to the patterns of deviant behavior with emphasis on cause, function, and treatment. The various models for the conceptualization of abnormal behavior are critically examined. *Prerequisite: Psychology 10.*

17 DEVELOPMENTAL PSYCHOLOGY

A study of the basic principles of early human growth and development. *Prerequisite: Psychology 10.*

18 ADOLESCENT PSYCHOLOGY

The study areas will include theories of adolescence; current issues raised by as well as about the "generation of youth"; research findings bearing on theories and issues of growth beyond childhood; and self-exploration. *Prerequisite: Psychology 10.*

24 SOCIAL PSYCHOLOGY

An examination of behavior in social contexts including motivation, perception, group processes and leadership, attitudes, and methods of research. *Prerequisite: Psychology 10.*

31 LEARNING EXPERIMENTAL PSYCHOLOGY

Learning processes. The examination of the basic methods and principles of animal and human learning. *Prerequisite: Psychology 10; Mathematics 13.*

32 SENSORY EXPERIMENTAL PSYCHOLOGY

The examination of psychophysical methodology and basic neurophysiological methods as they are applied to the understanding of sensory processes. *Prerequisite: Psychology 10; Mathematics 13.*

33 PHYSIOLOGICAL PSYCHOLOGY

An introduction to the physiological psychologist's method of approach to the understanding of behavior as well as the set of principles that relate the function and organization of the nervous system to the phenomena of behavior. The course emphasis is on the relationship between brain function and the physiological bases of learning, perception, and motivation. Laboratory experience includes both behavioral testing and basic small-animal neurosurgical technique as well as histological methodology. *Prerequisite: Psychology 20 or Biology 23, and Mathematics 13.*

34 PRINCIPLES OF MEASUREMENT

Psychometric methods and theory, including scale transformation, norms, standardization, validation procedures and estimation of reliability. *Prerequisite: Psychology 10, Mathematics 13.*

35 HISTORY AND SYSTEMS OF PSYCHOLOGY

The growth of scientific psychology and the theories and systems that have accompanied its development. *Prerequisite: 4 courses in Psychology.*

36 PERSONALITY THEORY

Theories of personality. A comparison of different theoretical views on the development and functioning of personality. Examined in detail are three general viewpoints of personality: psychoanalytic, stimulus-response (behavioristic), and phenomenological. *Prerequisite: Psychology 10.*

37 COGNITION

An investigation of human mental processes along the two major dimensions of directed and undirected thought. Topic areas include: recognition, attention, conceptualization, problem-solving, fantasy, language, dreaming, and creativity. *Prerequisite: Psychology 10.*

38 EDUCATIONAL PSYCHOLOGY

An introduction to the empirical study of the teaching-learning process. Areas considered may include educational objectives, pupil and teacher characteristics, concept learning, problem solving and creativity, attitudes and values, motivation, retention and transfer, and evaluation and measurement. *Prerequisite: Psychology 10 or consent of instructor.*

39 BEHAVIOR MODIFICATION

A detailed examination of the applied analysis of behavior. Focus will be on the application of experimental method to the individual clinical case. The course will cover targeting, behavior, base-rating, intervention strategies and outcome evaluation. Learning based modification techniques such as contingency management, counter-conditioning, extinction, discrimination training, aversive conditioning and negative practice will be examined. *Prerequisite: Psychology 21.*

40 ADVANCED EXPERIMENTAL DESIGN

Consideration of a variety of designs currently used in Psychology with emphasis on the appropriate statistical analysis. *Prerequisite: Psychology 20 and 21.*

48-49 PRACTICUM IN PSYCHOLOGY

An off-campus involvement in the application of psychological skills and principles in institutional settings. The experience includes training in behavior modification and traditional counseling techniques as applied in prisons, mental health centers, and schools for the mentally retarded. Classroom training focuses on various therapeutic techniques and on the students' understanding of themselves in the counselor role. *Prerequisite: Consent of instructor.*

70-79 INTERNSHIP (See Index)

Internships give students an opportunity to relate on-campus academic experiences to society in general and to their post-baccalaureate objectives in particular. Our students have, for example, worked in prisons, public and private schools, county government, and the American Red Cross.

80-89 INDEPENDENT STUDY (See Index)

Independent Study is an opportunity for students to pursue special interests in areas for which courses are not offered. In addition, students have an opportunity to study a topic in more depth than is possible in the regular classroom situation. Studies in the past have included child abuse, counseling of hospital patients, and research in the psychology of natural disasters.

90-99 INDEPENDENT STUDY FOR DEPARTMENTAL HONORS (See Index)

Honors in Psychology require original contributions to the literature of Psychology through independent study. The most recent honors project was a study of the relationship between socio-economic status and visual vs. auditory learning.

RELIGION

Professor: Guerra
Assistant Professor: Hughes (Chairman), Robinson

A major consists of ten courses including 11, 12, 13, and 14. At least seven courses must be taken in the department. The following courses may be counted toward fulfilling the major requirements: Greek 11 and 12, Hebrew 11 and 12, History 39 and 41, Philosophy 32, and Sociology 33.

11 DEATH AND DYING

A study of death from personal, social, and universal standpoints, with emphasis upon what the dying may teach the living. Principal issues are the stages of dying, bereavement, suicide, funeral conduct, and the religious doctrines of death and immortality. Course includes, as optional, practical projects with terminal patients under professional supervision.

12 RELIGION AND THE SPIRIT OF SCIENCE

A comparison of the approaches taken by religion and science towards such topics as: evolution, psychic phenomena, primitive creation myths, modern astronomy, depth psychology, and the concept of "revelation." The role of "faith," "fact," and "intuition" in each discipline will be examined. Scientists, engineers, and technicians will be invited to share their views informally with the class.

13 OLD TESTAMENT FAITH AND HISTORY

A critical examination of the literature within its historical setting and in the light of archeological findings to show the faith and religious life of the Hebrew-Jewish community in the biblical period, and an introduction to the history of interpretation with an emphasis on contemporary Old Testament criticism and theology.

14 NEW TESTAMENT FAITH AND HISTORY

A critical examination of the literature within its historical setting to show the faith and religious life of the Christian community in the biblical period, and an introduction to the history of interpretation with an emphasis on contemporary New Testament criticism and theology.

22 PROTESTANTISM IN THE MODERN WORLD

An examination of changing Protestant thought and life from Luther to the present, against the backdrop of a culture itself rapidly changing from the Seventeenth century scientific revolution to Marxism, Darwinism, and depth psychology. Special attention will be paid to the constant interaction between Protestantism and the world in which it finds itself.

23 AFRICAN RELIGIONS

An examination of the integrated life of the Black man in Africa before it was altered by Western imperialism. We will emphasize the "religious" side of the African's life, examining the way in which it is interwoven with his daily activities, from before his birth to after his death. Some attention will be given to Western influences on this traditional lifestyle.

24 JUDAISM AND ISLAM

An examination of the rise, growth, and expansion of Judaism and Islam, with special attention given to the theological contents of the literatures of these religions as far as they are normative in matters of faith, practice, and organization. Also a review of their contributions to the spiritual heritage of mankind.

25 ORIENTAL RELIGION

A phenomenological study of the basic content of Hinduism, Buddhism, and Chinese Taoism with special attention to social and political relations, mythical and aesthetic forms, and the East-West dialogue.

28 HISTORY AND CULTURE OF THE ANCIENT NEAR EAST

A study of the history and culture of Mesopotamia, Anatolia, Syria-Palestine, and Egypt, from the rise of the Sumerian culture to Alexander the Great. Careful attention will be given to the religious views prevalent in the Ancient Near East as far as these views interacted with the culture and faith of Biblical man.

30 PSYCHOLOGY OF RELIGION

A study into the broad insights of psychology in relation to the phenomena of religion and religious behavior. The course concentrates on religious experience or manifestations rather than concepts. Tenative solutions will be sought to questions such as: What does it feel like to be religious or to have a religious experience? What is the religious function in human development? How does one think psychologically about theological problems?

31 CHRISTIAN SOCIAL ETHICS

A study of Christian ethics as a normative perspective for contemporary moral problems with emphasis upon the interaction of law and religion, decision-making in the field of biomedical practice, and the reconstruction of society in a planetary civilization.

32 CONTEMPORARY PROBLEMS IN CHRISTIAN SOCIAL ETHICS

An examination of the approach of religion and other disciplines to an issue of current concern; current topics include the theological significance of law, the ethics of love, and the holocaust. *The course may be repeated for credit.*

33 ROMAN CATHOLIC THOUGHT

The development of Thomism, Neo-Thomism, and Transcendental Thomism; limited attention given to pastoral and ecclesiological issues in the post-conciliar era after Vatican II.

37 BIBLICAL TOPICS

An in-depth study of Biblical topics related both to the Old Testament and the New Testament. Topics include prophecy, wisdom, literature, the Dead Sea Scrolls, the teachings of Jesus, Pauline theology, Judaism and Christian origins, redaction criticism—the way the Synoptic Gospels and John give final form to their message. *Course will vary from year to year and may be taken for credit a second time if the topic is different from one previously studied.*

41 CONTEMPORARY RELIGIOUS ISSUES

A study of the theological significance of some contemporary intellectual developments in western culture. The content of this course will vary from year to year. Subjects studied in recent years include the following: the

theological significance of Freud, Marx, and Nietzsche; Christianity and existentialism; theology and depth psychology; and the religious dimension of contemporary literature.

42 THE NATURE AND MISSION OF THE CHURCH

A study of the nature of the Church as "The People of God" with reference to the Biblical, Protestant, Orthodox and Roman Catholic traditions.

43 THE EDUCATIONAL MINISTRY OF THE CHURCH

A study of religious education as a function of the church with special attention given to the nature and objectives of Christian education, methods of teaching religion, and the relations between faith and learning.

46 BIBLE, ARCHEOLOGY, AND FAITH

A study of the role of archeology in reconstructing the world in which the Biblical literature originated, with special attention given to archeological results that throw light on the clarification of the Biblical text. Also an introduction to basic archeological method, and a study in depth of several representative excavations along with the artifacts and material culture recovered from different historical peiods.

70-79 INTERNSHIP (See Index)

Interns in religion usually work in local churches under the supervision of the pastor and a member of the faculty.

80-89 INDEPENDENT STUDY (See Index)

Current study areas are in the biblical languages, New Testament theology, comparative religions, and the ethics of technology.

90-99 INDEPENDENT STUDY FOR DEPARTMENTAL HONORS (See Index)

A recent project was on the Theology of Hope with reference to the thought of Ernst Bloch and Alfred North Whitehead.

SOCIOLOGY—ANTHROPOLOGY

Professor: McCrary
Associate Professor: Wilk
Assistant Professor: Jo (Chairman), Strauser
Part-time Instructor: Slotter

A major consists of Sociology-Anthropology 10, 14, 16, 44, 47 and three other courses within the department with the exception of 15, 23. Religion 46 may also be counted toward the major. Sociology-Anthropology majors are encouraged to participate in the internship program.

10 INTRODUCTION TO SOCIOLOGY

An introduction to the problems, concepts, and methods in sociology today,

including analysis of stratification, organization of groups and institutions, social movements, and deviants in social structure.

14 INTRODUCTION TO ANTHROPOLOGY

An introduction to the subfields of anthropology; its subject matter, methodology, and goals. Examination of biological and cultural evolution, the fossil evidence for human evolution and questions raised in relation to human evolution. Other topics include race, human nature, primate behavior, and prehistoric cultural development.

15 INTRODUCTION TO AMERICAN CRIMINAL JUSTICE SYSTEM

An introduction to the role of law enforcement, courts, and corrections in the administration of justice; the historical development of police, courts and corrections; jurisdiction and procedures of courts; an introduction to the studies, literature, and research in criminal justice; careers in criminal justice.

16 CULTURAL ANTHROPOLOGY

An examination of cultural and social anthropology designed to familiarize the student with the analytical approaches to the diverse cultures of the world. The relevancy of cultural anthropology for an understanding of the human condition will be stressed. Topics to be covered include: the nature of primitive societies in contrast to civilizations, the concept of culture and cultural relativism, the individual and culture, the social patterning of behavior and social control, an anthropological perspective on the culture of the United States.

20 MARRIAGE AND THE FAMILY

The history, structure, and functions of modern American family life, emphasizing dating, courtship, factors in marital adjustment, and the changing status of family members. *Prerequisite: Sociology-Anthropology 10 or consent of instructor.*

21 JUVENILE DELINQUENCY

A multidisciplinary approach to the study of the constellation of factors that relate to juvenile delinquency causation, handling the juvenile delinquent in the criminal justice system, treatment strategies, prevention and community responsibility. *Prerequisite: Sociology-Anthropology 10 or consent of instructor.*

22 PEOPLES AND CULTURES OF MEXICO

Examination of the diverse cultures of Mesoamerica from preconquest indigenous peoples to modern Mexican state, including the rise and fall of Aztec and Maya civilization, transformation from Primitive agriculturalist to peasant, concepts of folk society and culture of poverty; an analysis of contemporary problems of rural Mexico and the role of peasants in modern revolutionary movements. *Offered at least once every three years.*

23 INTRODUCTION TO LAW ENFORCEMENT

Principles, theories and doctrines of the law of crimes, elements in crime, analysis of criminal investigation, important case law. *Prerequisite: Sociology-Anthropology 15 or consent of instructor.*

24 RURAL AND URBAN COMMUNITIES

The concept of community is treated as it operates and affects individual and group behavior in rural, suburban, and urban settings. Emphasis is placed upon characteristic institutions and problems of modern city life. *Prerequisite: Sociology-Anthropology 10 or consent of instructor.*

26 SOCIAL MOVEMENTS

An analysis of the dynamics, structure, and reaction to social movements with focus on contemporary social movements. *Prerequisite: Sociology-Anthropology 10 or consent of instructor.*

27 SOCIALIZATION THROUGH THE LIFE SPAN

Examination of the relationship between the individual and society in the development of behavior potentials of groups and cultures. The course will study the continual process of learning how to be "human" which occurs throughout the life span. A cross cultural approach is utilized to examine the process of acquisition of skills, motives, and attitudes necessary for role performance in childhood, adolescence, with an emphasis on young adulthood, adulthood, middle age, and old age. Life span developmental theory will be used in conjunction with socialization theory and role theory. *Prerequisite: Sociology-Anthropology 10 or consent of instructor.*

28 AGING AND SOCIETY

Analysis of cross cultural characteristics of the aged as individuals and as members of groups. Emphasis is placed upon variables: health, housing, socio-economic status, personal adjustment, retirement and social participation. Sociological, social psychological and anthropological frames of reference utilized in analysis and description of aging and its relationship to society, culture, and personality.

29 TWENTIETH CENTURY CHINESE SOCIETY

An analysis of the interaction between the individual and society undergoing rapid social change in the Chinese cultural context. Topics include Confucian examination system and social mobility, the traditional Chinese village and family, origins of Chinese Marxism and how it has been implemented in social institutions of The People's Republic of China. *Alternate years.*

30 CRIMINOLOGY

Analysis of the sociology of law, conditions under which criminal laws develop, etiology of crime, epidemiology of crime including explanation of statistical distribution of criminal behavior in terms of time, space, and social location. *Prerequisite: Sociology-Anthropology 10 or consent of instructor.*

31 SOCIOLOGY OF WOMEN

A sociological examination of the role of women in American society through an analysis of the social institutions which affect their development. Role analysis theory will be applied to the past, present and future experience of women as it relates to the role options of the society as a whole. Students will do an original research project on the role of women as part of the

requirements for the course. *Prerequisite: Sociology-Anthropology 10. Alternate years.*

32 INSTITUTIONS

Introduces the student to the sociological concept of social institution, the types of social institutions to be found in all societies, and the interrelationships between the social institutions within a society. The course is divided into two basic parts: 1. That aspect which deals with the systematic organization of society in general, and 2. The concentration on a particular social institution: economic, political, educational, or social welfare. *Prerequisite: Sociology-Anthropology 10 or consent of instructor.*

33 SOCIOLOGY OF RELIGION

An examination of the major theories of the relationship of religion to society, and a survey of sociological studies of religious behavior. *Prerequisite: Sociology-Anthropology 10 or consent of instructor.*

34 RACIAL AND CULTURAL MINORITIES

Study of racial, cultural and national groups within the framework of American cultural values. Culture conflict and its resolution will be examined for selected minority groups.

35 CULTURE AND PERSONALITY

Introduction to psychological anthropology, its theories and methodologies. Emphasis will be placed on the relationship between individual and culture, national character, cognition and culture, culture and mental disorders, and cross cultural considerations of the concept of self. *Prerequisite: Sociology-Anthropology 16 or consent of instructor. Offered at least once every three years.*

36 THE ANTHROPOLOGY OF PRIMITIVE RELIGIONS

The course will familiarize the student with the wealth of anthropological data on the religions and world views developed by primitive peoples. The functions of primitive religion in regard to the individual, society and various cultural institutions will be examined. Subjects to be surveyed include myth, witchcraft, vision quests, spirit possession, the cultural use of dreams and revitalization movements. Particular emphasis will be given to shamanism, transcultural religious experience, and the creation of cultural realities through religions. Both a social scientific and existentialist perspective will be employed. *Prerequisite: Sociology-Anthropology 16 or consent of instructor. Alternate years.*

37 THE ANTHROPOLOGY OF AMERICAN INDIANS

An ethnographic survey of native North American Indian and Eskimo cultures, such as the Iroquois, Plains Indians, Pueblos, Kwakiutl, and Netsilik. Changes in native lifeways due to European contacts and United States expansion will be considered. Recent cultural developments among American Indians will be placed in an anthropological perspective. *Offered at least once every three years.*

38 LEGAL AND POLITICAL ANTHROPOLOGY

The course is designed to familiarize the student with the techniques of conflict resolution and the utilization of public power in primitive society as well as the various theories of primitive law and government. The rise of the state and an anthropological perspective on modern law and government will be included. The concepts of self-regulation and social control, legitimacy, coercion, and exploitation will be the organizing focus. *Prerequisite: Sociology-Anthropology 16 or consent of instructor. Alternate years.*

39 THE AMERICAN PRISON SYSTEM

Nature and history of punishment, evolution of the prison and prison methods with emphasis on prison community, prison architecture, institutional programs, inmate rights and sentences. Review of punishment vs. treatment, detention facilities, jails, reformatories, prison organization and administration, custody and discipline. *Prerequisite: Sociology-Anthropology 15.*

41 SOCIAL STRATIFICATION

An analysis of the nature of stratification systems, with special reference to American social structure. *Prerequisite: Sociology-Anthropology 10 or consent of instructor. Alternate years.*

42 INTRODUCTION TO SOCIAL WORK

Consideration of basic social work concepts, principles and techniques of interviewing, individual case work, group work, and community organization, development of skills and techniques of social work applied to the correctional setting. *Prerequisite: Sociology-Anthropology 10 or consent of instructor.*

43 ALTERNATIVE LIFE STYLES

Analysis of new life styles in American Society: life styles of minority groups and others who are considered by society to be nonconforming. Examination of the challenges to conformity and ramifications of nonconformity in American Society. Will include an inquiry into behavior which has historically been labeled deviant covering such topics as: mental illness, addiction to alcohol and narcotics, homosexuality, and prostitution. *Prerequisite: Sociology-Anthropology 10 or consent of instructor.*

44 SOCIAL THEORY

The history of the development of sociological thought from its earliest philosophical beginnings is treated through discussions and reports. Emphasis is placed upon sociological thought since the time of Comte. *Prerequisite: Sociology-Anthropology 10 or consent of instructor.*

45 ANTHROPOLOGICAL THEORY

The history of the development of anthropological thought from the eighteenth century to the present. Emphasis is placed upon anthropological thought since 1850. Topics include evolutionism, historical-particularism, cultural idealism, cultural materialism, functionalism, structuralism and

ethnoscience. *Prerequisite: Sociology-Anthropology 16 or consent of instructor. Offered at least once every three years.*

47 RESEARCH METHODS IN SOCIOLOGY-ANTHROPOLOGY

Study of the research process in sociology and anthropology, including formation of research design (theory, methodology, and techniques), and practical application in the investigation of a research problem. *Prerequisite: Mathematics 13 and Sociology-Anthropology 10 or consent of instructor.*

48-49 PRACTICUM IN SOCIOLOGY

Introduces the student to a practical work experience involving community agencies in order to effect a synthesis of the student's academic course work and its practical applications in a community agency. Specifics of the course to be worked out in conjunction with department, student and agency. *Prerequisite: Sociology-Anthropology 10 or consent of instructor.*

70-79 INTERNSHIP (See Index)

Interns in Sociology-Anthropology typically work off-campus with social service agencies under the supervision of administrators. However, other internship experiences such as with the Lycoming County Historical Museum are available.

Interns in criminal justice work off-campus in criminal justice agencies such as penal institutions and probation and parole departments under the supervision of administrative personnel.

80-89 INDEPENDENT STUDY (See Index)

Typical examples of recent studies in Sociology-Anthropology are American Indian world views and religions and program evaluation in the human services area. Recent studies in the criminal justice area are the status of women in the criminal justice system and model correctional legislation and standards.

90-99 INDEPENDENT STUDY FOR DEPARTMENTAL HONORS (See Index)

THEATRE

Professor: Falk (Chairman)
Assistant Professor: Dartt

The major consists of eight courses, except Theatre 1, wth a concentration in Acting, Directing, or Design. The Fine Arts requirement may be satisfied by selecting any two courses, except Theatre 1. In addition to the departmental requirements, majors are urged to include courses in Art, Music, Psychology, and English.

1 FUNDAMENTALS OF ORAL COMMUNICATION

The dynamics of oral communication. The development of elementary principles of simple oral communication through lectures, prepared assignments in speaking, and informal class exercises. Utilizes video tape sequences for "instant feedback" to students.

10 INTRODUCTION TO THEATRE

Designed as a comprehensive introduction to the aesthetics of theatre. From the spectator's point of view, the nature of theatre will be explored including dramatic literature and the integrated functioning of acting, directing, and all production aspects.

11 INTRODUCTION TO FILM

A basic course in understanding the film medium. The class will investigate film technique through lectures and by viewing regular weekly films chosen from classic, contemporary, and experimental short films.

12 HISTORY OF THEATRE I

A detailed study of the development of theatre from the Greeks to the Restoration. *Alternate years.*

13 HISTORY OF THEATRE II

The history of the theatre from 1660. *Alternate years.*

14 ORAL INTERPRETATION OF LITERATURE

The fundamental principles and methods of oral reading and the interpretation of literature are introduced. Materials will be chosen from poetry, prose, the novel, and drama. *Alternate years.*

15 PLAYWRITING AND DRAMATIC CRITICISM

An investigation of the techniques of playwriting with an emphasis on creative writing, culminating in a written one-act play, plus an historical survey of dramatic criticism from Aristotle to the present, with emphasis upon developing the student's ability to write reviews and criticism of theatrical productions and films. *Alternate years.*

18 PLAY PRODUCTION FOR COMMUNITY AND SECONDARY SCHOOLS

Stagecraft and the various other aspects of play production are introduced. Through material presented in the course and laboratory work on the Arena Theatre stage, the student will acquire experience to produce theatrical scenery for community and secondary school theatre.

24 INTRODUCTION TO ACTING

An introductory study of the actor's preparation, with emphasis on developing the actor's creative imagination through improvisations and scene study.

26 INTRODUCTION TO DIRECTING

An introductory study of the function of the director in preparation, rehearsal, and performance. Emphasis is placed on developing the student's ability to analyze scripts and on the development of the student's imagination.

28 INTRODUCTION TO SCENE DESIGN AND STAGECRAFT

An introduction to the theatre with an emphasis on stagecraft. The productions each semester serve as the laboratory to provide the practical experience necessary to understand the material presented in the classroom.

29 MARIONETTE PRODUCTION

Introduces the construction, costuming, and performing of a play through the medium of string puppets. *Alternate years.*

31 ADVANCED TECHNIQUES OF PLAY PRODUCTION

A detailed consideration of the interrelated problems and techniques of play analysis, production styles, and design. *Offered summer only.*

34 INTERMEDIATE STUDIO: ACTING

Instruction and practice in character analysis and projection, with emphasis on vocal and body techniques.

35 THEORIES OF THE MODERN THEATRE

An advanced course exploring the philosophical roots of the modern theatre from the birth of realism to the present, and the influences on modern theatre practice. Selected readings from Nietzsche, Marx, Jung, Freud, Whitehead, Kierkegaard, Sartre, Camus, as well as Antoine, Copeau, Stanislavski, Shaw, Meyerhold, Artaud, Brecht, Brook, Grotowski. *Alternate years.*

36 INTERMEDIATE STUDIO: DIRECTING

Emphasis is placed on the student's ability to function in preparation and rehearsal. Practical experience involves the directing of two one-act plays from the contemporary theatre.

38 INTERMEDIATE STUDIO: SCENE AND LIGHTING DESIGN

The theory of stage and lighting design with emphasis on their practical application to the theatre.

40 MASTERS OF WORLD DRAMA

An intensive and detailed analysis of the plays, and related works, including criticism of great authors, that have shaped world theatre. Authors to be selected on the basis of interest of students and faculty. At times, more than one author will be treated in a term. Ibsen, Brecht, Moliere, Williams, Albee. *Alternate years. May be accepted toward English major with consent of English Department.*

42 ADVANCED STUDIO: COSTUME DESIGN

The theory of costuming for the stage, elements of design, planning, production, and construction of costumes for the theatre. Students will participate in the design of a production.

43 ADVANCED STUDIO: PROPERTIES DESIGN

The theory of properties design for the stage including the production of

specific properties for staging use. Elements of design, fabrication, and the construction of properties employing a variety of materials and the application of new theatrical technology.

44 ADVANCED STUDIO: ACTING

Preparation of monologues and two-character scenes, contemporary and classical. The student will appear in major campus productions.

46 ADVANCED STUDIO: DIRECTING

Emphasis will be placed on the student's ability to produce a major three-act play from the script to the stage for public performance.

48 ADVANCED STUDIO: DESIGN

Independent work in conceptual and practical design. The student will design one full production as his major project.

70-79 INTERNSHIP (See Index)

Interns in theatre work off-campus in such theatres as the Guthrie Theatre, Minneapolis, and the New Jersey Shakespeare Festival.

80-89 INDEPENDENT STUDY (See Index)

Some recent independent studies have been the roles of women as characters in drama, scene design and lighting design for an Arena production.

90-99 INDEPENDENT STUDY FOR DEPARTMENTAL HONORS (See Index)

A typical study could be the writing and production of an original play.

COOPERATIVE PROGRAMS

Lycoming has developed several cooperative programs in order to provide students with opportunities to extend their knowledge, abilities, and talents in selected areas through access to the specialized academic programs and facilities of other colleges, universities, academies, and hospitals. Although thorough advisement and curricular planning are provided for each of the cooperative programs, admission to Lycoming and registration in the program of choice does not guarantee students admission to the cooperating institution. The prerogative of admitting students to the cooperative aspect of the program rests with the cooperating institution. Students who are interested in a cooperative program should contact the coordinator during the first week of the first semester of their enrollment at Lycoming in order to plan their course programs in a manner that will insure completion of required courses according to the schedule stipulated for the program. All cooperative programs require special coordination of course scheduling at Lycoming.

Drama—Lycoming's affiliation with the American Academy of Dramatic Arts provides for advanced standing status at the Academy for a Lycoming graduate who is recommended by the Lycoming Theatre faculty and admitted to the Academy. An Academy graduate who is recommended by the faculty of the Academy and who has successfully completed two years of study at an accredited college or university may earn a bachelor of arts degree at Lycoming by working two summers with The Arena Theatre and completing two consecutive semesters of course work during the regular academic year. Summer course work may be required in individual cases.

Engineering—Combining the advantages of a liberal arts education and the technical training of an engineering curriculum, this program is offered in conjunction with Bucknell University and The Pennsylvania State University. Students complete three years of study at Lycoming and two years at the cooperating university. Upon satisfactory completion of the first year of engineering studies, Lycoming awards the bachelor of arts degree. When students successfully complete the second year of engineering studies, the cooperating university awards the bachelor of science degree in engineering.

At Lycoming, students complete the distribution program and courses in physics, mathematics, and chemistry. Engineering specialities offered at Bucknell University include chemical, civil, electrical, and mechanical, whereas The Pennsylvania State University offers aeronautical, civil, electrical, industrial, mechanical and sanitary engineering.

Forestry or Environmental Studies—Lycoming College offers a cooperative program with Duke University in environmental management and forestry. Qualified students can earn the bachelor's and master's degrees in five years, spending three years at Lycoming and two years at Duke. All Lycoming distribution and major requirements must be completed by the end of the junior year. At the end of the first year at Duke, the B.A. degree will be awarded by Lycoming. Duke will award the professional degree of Master of Forestry or Master of Environmental Management to qualified candidates at the end of the second year.

The major program emphases at Duke are forest resource production, resource science, and resource policy and economics; however, the program is flexible enough to accommodate a variety of individual designs. An undergraduate major in one of the natural sciences, social sciences, or business may provide good preparation for the programs at Duke, but a student with any undergraduate concentration will be considered for admission. All students need at least two courses each in biology, mathematics, and economics.

Students begin the program at Duke in August following their junior year at Lycoming with a one-month session of field work in natural resource measurements, and must complete a total of 60 units which generally takes four semesters.

Some students prefer to complete the bachelor's degree before undertaking graduate study at Duke. The master's degree requirements for these students are the same as those for students entering after the junior year, but the 60-unit requirement may be reduced for completed relevant undergraduate work of satisfactory quality. All credit reductions are determined individually and consider the student's educational background and objectives.

Medical Technology—Students desiring a career in medical technology may either complete a bachelor of arts program followed by a clinical internship at any American Medical Association accredited hospital or they may complete the cooperative program. Students electing the cooperative program normally study for three years at Lycoming, during which time they complete 24 unit courses, including the college distribution requirements, a major, and requirements of the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). The current requirements of the NAACLS are as follows: four courses in chemistry (one of which must be either organic or biochemistry); four courses in biology (including courses in microbiology and immunology); and one course in mathematics.

Students in the cooperative program usually major in biology, following a modified major of six unit courses that exempts them from Ecology (Biology 24) and Plant Sciences (Biology 25). Students must take either Animal Physiology (Biology 23) or Cell Physiology (Biology 35). The cooperative program requires successful completion of a one-year internship at an American Medical Association accredited hospital. Lycoming is affiliated with the following accredited hospitals: Williamsport, Divine Providence, Robert Packer, Lancaster, and Abington. Students in the cooperative program receive credit at Lycoming for each of eight unit courses in biology and chemistry successfully completed during the clinical internship. Successful completion of the Registry Examination is not considered a graduation requirement at Lycoming College.

Students entering a clinical internship for one year following graduation from Lycoming must complete all of the requirements of the cooperative program, but are not eligible for the biology major exemptions indicated above. Upon graduation, such students may apply for admission to a clinical program at any hospital.

Podiatry—Students interested in podiatry may either seek admission to a college of podiatric medicine upon completion of the bachelor of arts degree or through the Accelerated Podiatric Medical Education Curriculum Program (APMEC). The latter program provides an opportunity for students to qualify for admission to the Pennsylvania College of Podiatric Medicine (PCPM) after three years of study at Lycoming. At Lycoming, students in the APMEC program must successfully complete 24 unit courses, including the distribution program and a basic foundation in biology, chemistry, physics, and mathematics. During the first year of study at PCPM, students must successfully complete the equivalent of 48 semester hours of basic science courses in addition to a program in introduction to podiatry. Successful completion of the first year of professional training will contribute toward the fulfillment of the course requirements for the bachelor of arts degree at Lycoming.

Reserve Officers Training Corps Program (R.O.T.C.)—The program provides a voluntary opportunity for Lycoming students to enroll on a non-credit basis in the Bucknell University R.O.T.C. unit. Lycoming notes enrollment in and

successful completion of the program on student transcripts. Military Science is a four-year program divided into a basic course given during the freshman and sophomore years and an advanced course given during the junior and senior years. Students who have not completed the basic course may qualify for the advanced course by completing summer camp between the sophomore and junior years. Students enrolled in the advanced course receive a monthly stipend of $100 for up to ten months a year. Students successfully completing the advanced course and advanced summer camp between the junior and senior years will qualify for a commission as a Second Lieutenant in the United States Army upon graduation and will incur a service obligation in the active Army or Army Reserves. The only expense to the student for this program is the deposit referred to in Chapter III under "Entry Fee and Deposits."

Student Enrichment Semester—This voluntary program is designed to expand academic and life opportunities for students and to provide for participation in specialized programs and courses not available at Lycoming. Other members of the program are Bucknell and Susquehanna Universities, the Williamsport Area Community College, and Bloomsburg, Lock Haven, and Mansfield State Colleges. Students other than freshmen enroll full time for credit, normally for one semester or term, at any participating institution in selected courses. Students in the program remain fully enrolled as degree candidates at their home institutions. A special opportunity within the program is the cross-registration arrangement with the Williamsport Area Community College whereby students may enroll for less than a full-time course load while remaining enrolled in courses at Lycoming.

Washington, United Nations, and **London Semesters**—With the consent of the Political Science Department, selected students are permitted to study in Washington, D.C. at The American University for one full semester and may choose from seven different programs: Washington Semester, Urban Semester, Foreign Policy Semester, International Development Semester, Economic Policy Semester, Science and Technology Semester, American Studies Semester.

With the consent of either the Department of History or Political Science, selected students may enroll at Drew University in Madison, N.J., in the United Nations Semester, which is designed to provide a first-hand acquaintance with the world organization. Students with special interests in world history, international relations, law, and politics are eligible to participate.

The London Semester programs of Drew and The American University emphasize European history, politics and culture. Interested students participate with the consent of either the History or Political Science Departments.

Normally the above special semester programs are open only to juniors.

Lycoming College cannot assume responsibility for the health, safety, or welfare of any student engaged in or en route to or from any off-campus studies or activities which are not under the exclusive jurisdiction of this institution.

CHAPTER VII
COLLEGE DIRECTORY

BOARD OF TRUSTEES

OFFICERS

W. Gibbs McKenney, LL.D. ..... Chairman
Nathan W. Stuart, J.D. ..... Vice Chairman
Paul G. Gilmore ..... Secretary
William L. Baker ..... Treasurer
Fred A. Pennington, LL.D. ..... Chairman Emeritus

HONORARY TRUSTEES

Bishop Hermann W. Kaebnick, D.D., L.H.D., LL.D. ..... Hershey
Ralph E. Kelchner ..... Jersey Shore
Arnold A. Phipps, II ..... Williamsport
Mrs. Donald G. Remley ..... Williamsport
George L. Stearns, II ..... Williamsport

TRUSTEES

Term Expires 1980

Elected		
1974	J. Robert Fahnestock	Williamsport
1974	Daniel G. Fultz	Pittsford, NY
1974	Mrs. Fred S. Gorman	York
1965	James G. Law, D. Text. Sci.	Bloomsburg
1977	Robert L. Morris, Ph.D. (Alumni Representative)	Indiana
1970	John E. Person, Jr.	Williamsport
1965	Hon. Herman T. Schneebeli	Williamsport
1972	Donald E. Shearer, M.D.	Montoursville
1961	Nathan W. Stuart, J.D.	Williamsport
1971	Willis W. Willard, III, M.D.	Hershey
1958	W. Russell Zacharias	Allentown

Term Expires 1981

Elected		
1978	Howard C. Beach	Sarasota, FL
1969	Samuel H. Evert	Bloomsburg
1972	The Rev. Brian A. Fetterman	Harrisburg
1978	Harold D. Hershberger, Jr.	Williamsport
1969	Kenneth E. Himes	Williamsport
1978	John C. Lundy	Williamsport
1978	Ms. Onalee R. Sabin (Alumni Representative)	Elmira, NY
1978	John Y. Schreyer	Little Falls, NJ
1978	M. L. Sharrah, Ph.D.	New Canaan, CT
1972	Harold H. Shreckengast, Jr.	Jenkintown

Term Expires 1982

Elected		
1979	David Y. Brouse	Williamsport
1951	Paul G. Gilmore	Williamsport
1978	Mrs. Robert B. Jones	Caledonia, NY
1973	Robert G. Little, M.D.	Harrisburg
1979	David J. Loomis, Ph.D. (Alumni Representative)	Troy
1964	W. Gibbs McKenney, LL.D.	Baltimore, MD
1973	G. Jackson Miller	Altoona
1958	Fred A. Pennington, LL.D.	Mechanicsburg
1979	The Rev. Walter M. Schell	Montoursville
1961	The Rev. Wallace F. Stettler, HH.D.	Kingston

ADMINISTRATIVE STAFF

FREDERICK E. BLUMER (1976) ..... President
B.A., Millsaps College; B.D., Ph.D., Emory University

SHIRLEY VAN MARTER (1979) ..... Dean of the College
B.A., Mundelein College; M.A., Northwestern University
M.A., Ph.D., University of Chicago

WILLIAM L. BAKER (1965) ..... Treasurer
B.S., Lycoming College

JACK C. BUCKLE (1957) ..... Dean of Student Services
A.B., Juniata College; M.S., Syracuse University

GEORGE P. FLINT (1977) ..... Director of Institutional Relations
A.B., Bowdoin College; A.M., P.D., Columbia University

DALE V. BOWER (1968) ..... Director of Alumni Affairs
B.S., Lycoming College; B.D., United Theological Seminary

RUSSELL A. BLOODGOOD (1969) ..... Manager of Food Services

CLARENCE W. BURCH (1962) ..... Director of Athletics
B.S, M.Ed., University of Pittsburgh

LOUISE A. CALIGIURI (1978) ..... Assistant Dean of Student Services
B.S., M.S., Duquesne University

ROBERT L. CURRY, JR. (1972) ..... Assistant in Athletics
A.B., Lycoming College

DEBRA A. D'AGUILLO (1976) ..... Associate Dean of Student Services
B.A., SUNY at Binghamton; M.S., SUNY at Albany;
Ed.S., SUNY at Albany

ROBERT A. DOYLE (1978) ..... Director of Admissions
B.A., Juniata College

ROBERT L. EDDINGER (1967) ..... Director of Buildings & Grounds

ROBERT J. GLUNK (1965) ..... Registrar and Assistant to the Dean
A.B., Lycoming College; M.A., The Pennsylvania State University

THOMAS J. HENNINGER (1966) ..... Director of Computer Services
B.S., Wake Forest College; M.A., University of Kansas

MARY E. HERRING (1978) ..... Assistant Director of Admissions
B.A., Albright College

RICHARD A. HUGHES (1970) ..... Chaplain of the College
B.A., Indiana Central College; S.T.B., Ph.D., Boston University

HAROLD H. HUTSON (1969) ..... President Emeritus
B.A., LL.D., Wofford College; B.D., Duke University
Ph.D., University of Chicago; L.H.D., Ohio Wesleyan University
DOUGLAS J. KEIPER (1970) ..... Assistant Director of Admissions
A.B., Lycoming College; M.Ed., The Pennsylvania State University
LAWRENCE W. MAYES (1979) ..... Assistant in Athletics
B.S., Lock Haven State College; M.S., SUNY at Albany
ROBIN J. NEWMAN (1979) ..... Assistant Director of Admissions
A.B., Lycoming College
WILLIAM H. RUPP (1979) ..... Director of Public Relations
B.A., M.A., The Pennsylvania State University
DOROTHY J. STREETER (1946) ..... Book Store Manager
BETTY JUNE SWANGER (1961) ..... Director of Accounting Services
CHARLES E. WEYANT (1971) ..... Director of Library Services
B.A., The American University; M.S., Simmons College
THOMAS P. WOZNIAK (1979) ..... Assistant Dean of Student Services
B.A., Merrimack College; M.Ed., Worcester State College

MEDICAL STAFF

FREDERIC C. LECHNER, M.D. ..... College Physician
B.S., Franklin and Marshall College;
M.D., Jefferson Medical College
RICHARD MAYS, M.D. ..... Psychiatrist
B.A., The Pennsylvania State University;
M.D., Jefferson Medical College
ROBERT S. YASUI, M.D. ..... College Surgeon
M.D., Temple University
EMALINE W. DEIBERT, R.N. ..... College Nurse
Williamsport Hospital School of Nursing
EVELYN L. SEAMAN, R.N. ..... College Nurse
Williamsport Hospital School of Nursing

UNITED CAMPUS MINISTRY

ROGER ALLING, JR. (1978) ..... Chaplain to Episcopal Students
B.A., Kenyon College; B.Ltt., Diploma in Theology, Oxford University
PETER S. ELY (1978) ..... Chaplain to Baptist Students
B.S., Muhlenberg College; M.Div., Vanderbilt University
JAMES W. GRUBB (1977) ..... Chaplain to United Methodist Students
A.B., Albright College; M.Div., United Theological Seminary
DALE E. JOHNSON (1978) ..... Chaplain to Lutheran Students
B.A., Thiel College; M.Div., Lutheran Theological Seminary
DAVID L. REED (1977) ..... Chaplain to United Methodist Students
A.B., Lycoming College; M.Div., United Theological Seminary
WILLIAM J. RUMSEY (1978) ..... Chaplain to Presbyterian Students
B.A., Maryville College; M.Div., Pittsburgh Theological Seminary
DERWOOD A. STRUNK, JR. (1977) .. Chaplain to United Methodist Students
A.B., Lycoming College; M.Div., Lancaster Theological Seminary
JOHN J. TAMALIS (1976) ..... Chaplain to Roman Catholic Students
B.S., University of Scranton

FACULTY

EMERITI

MABEL K. BAUER ..... Professor Emeritus of Chemistry
B.S., Cornell University; M.S., University of Pennsylvania

DAVID G. BUSEY ..... Associate Professor Emeritus of Physical Education
B.S., M.S., University of Illinois

LEROY F. DERR ..... Professor Emeritus of Education
A.B., Ursinus College; M.A., Bucknell University
Ed.D., University of Pittsburgh

ROBERT H. EWING ..... Professor Emeritus of History
A.B., College of Wooster; M.A., University of Michigan
HH.D., Lycoming College

W. ARTHUR FAUS ..... Professor Emeritus of Philosophy
A.B., Dickinson College; S.T.B., Ph.D., Boston University

PHIL G. GILLETTE ..... Associate Professor Emeritus of Spanish
A.B., Ohio University; M.A., Columbia University

JOHN P. GRAHAM ..... Professor Emeritus of English
Ph.B., Dickinson College; M.Ed., The Pennsylvania State University

HAROLD W. HAYDEN ..... Librarian Emeritus and Professor Emeritus of Library Services
A.B., Nebraska State Teachers College; B.S., University on Illinois;
M.A. in L.S., University of Michigan

GEORGE W. HOWE ..... Professor Emeritus of Geology
A.B., M.S., Syracuse University; Ph.D., Cornell University

M. RAYMOND JAMISON ..... Assistant Professor Emeritus of Physics
B.S., Ursinus College; M.S., Bucknell University

WALTER G. McIVER ..... Professor Emeritus of Music
Mus.B., Westminster Choir College;
A.B., Bucknell University; M.A., New York University

LORING B. PRIEST ..... Professor Emeritus of History
LITT.B., Rutgers University; M.A., Ph.D., Harvard University

DONALD G. REMLEY ..... Assistant Professor Emeritus of Mathematics and Physics
A.B., Dickinson College; M.A., Columbia University

MARY LANDON RUSSELL ..... Associate Professor Emeritus of Music
Mus.B., Susquehanna University Conservatory of Music;
M.A., The Pennsylvania State University

LOUISE R. SCHAEFFER ..... Associate Professor Emeritus of Education
A.B., Lycoming College; M.A., Bucknell University
D.Ed., The Pennsylvania State University

GEORGE S. SHORTESS ..... Professor Emeritus of Biology
A.B., Johns Hopkins University; M.A., Columbia University;
Ph.D., Johns Hopkins University

FRANCES K. SKEATH ..... Professor Emeritus of Mathematics
A.B., M.A., Bucknell University
D.Ed., The Pennsylvania State University

JOHN A. STUART ..... Professor Emeritus of English
B.A., William Jewell College; M.A., Ph.D., Northwestern University

HELEN B. WEIDMAN ..... Professor Emeritus of Political Science
A.B., M.A., Bucknell University; Ph.D., Syracuse University

PROFESSORS

ROBERT F. FALK (1970) ..... Theatre
B.A., B.D., Drew University; M.A., Ph.D., Wayne State University

MORTON A. FINEMAN (1966) ..... Physics
A.B., Indiana University; Ph.D., University of Pittsburgh

EDUARDO GUERRA (1960) ..... Religion
B.D., Southern Methodist University;
S.T.M., Ph.D., Union Theological Seminary

JOHN G. HANCOCK (1967) ..... Psychology
B.S., M.S., Bucknell University;
Ph.D., The Pennsylvania State University

JOHN G. HOLLENBACK (1952) ..... Business Administration
Marshal of the College
B.S., M.B.A., University of Pennsylvania

JAMES K. HUMMER (1962) ..... Chemistry
B.N.S., Tufts University; M.S., Middlebury College;
Ph.D., University of North Carolina

JACK S. McCRARY (1969) ..... Sociology
B.A., M.A., Southern Methodist University;
Ph.D., Washington University

ROGER W. OPDAHL (1963) ..... Economics
A.B., Hofstra University; M.A., Columbia University;
D.Ed., The Pennsylvania State University

ROBERT W. RABOLD (1955) ..... Economics
B.A., The Pennsylvania State University;
M.A., Ph.D., University of Pittsburgh

JOHN A. RADSPINNER (1957) ..... Chemistry
B.S., University of Richmond; M.S., Virginia Polytechnic Institute;
D.Sc., Carnegie-Mellon University

LOGAN A. RICHMOND (1954) ..... Accounting
B.S., Lycoming College; M.B.A., New York University;
C.P.A. (Pennsylvania)

SHIRLEY A. VAN MARTER (1979) ..... Dean of the College
English
B.A., Mundelein College; M.A., Northwestern University;
M.A., Ph.D., University of Chicago

MARY J. VESTERMARK (1977) ..... Psychology
A.B., Oberlin College; M.A., Stetson University;
Ph.D., University of North Carolina at Chapel Hill

ASSOCIATE PROFESSORS

ROBERT B. ANGSTADT (1967) ..... Biology
B.S., Ursinus College; M.S., Ph.D., Cornell University

CLARENCE W. BURCH (1962) ..... Physical Education
B.S., M.Ed., University of Pittsburgh

BERNARD P. FLAM (1963)* ..... Spanish
A.B., New York University; M.A., Harvard University;
Ph.D., University of Wisconsin

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* On Sabbatical Fall Semester 1979-80

DAVID A. FRANZ (1970) ..... Chemistry
A.B., Princeton University; M.A.T., The Johns Hopkins University; Ph.D., University of Virginia

CHARLES L. GETCHELL (1967) ..... Mathematics
B.S., University of Massachusetts; M.A., Ph.D., Harvard University

ERNEST D. GIGLIO (1972) ..... Political Science
B.A., Queens College; M.A., SUNY at Albany; Ph.D., Syracuse University

STEPHEN R. GRIFFITH (1970)** ..... Philosophy
A.B., Cornell University; M.A., Ph.D., University of Pittsburgh

JOHN R. HUBBARD (1975) ..... Mathematics
A.B., University of Rochester; A.M., Ph.D., University of Michigan

EMILY R. JENSEN (1969) ..... English
B.A., Jamestown College; M.A., University of Denver; Ph.D., The Pennsylvania State University

FORREST E. KEESBURY (1970)* ..... Education
B.S., Defiance College; M.A., Bowling Green State University; Ed.D., Lehigh University

ROBERT H. LARSON (1969) ..... History
B.A., The Citadel; M.A., Ph.D., University of Virginia

PAUL A. MacKENZIE (1970)** ..... German
A.B., A.M., Ph.D., Boston University

GERTRUDE B. MADDEN (1958) ..... English
A.B., University of Pennsylvania; M.A., Bucknell University

ROBERT J. B. MAPLES (1969) ..... French
A.B., University of Rochester; Ph.D., Yale University

JOHN F. PIPER, JR. (1969) ..... History
A.B., Lafayette College; B.D., Yale University; Ph.D., Duke University

DAVID J. RIFE (1970) ..... English
B.A., University of Florida; M.A., Ph.D., Southern Illinois University

MICHAEL G. ROSKIN (1972)*** ..... Political Science
A.B., University of California at Berkeley; M.A., University of California at Los Angeles; Ph.D., The American University

ROGER D. SHIPLEY (1967)** ..... Art
B.A., Otterbein College; M.F.A., Cranbrook Academy of Art

WILLY SMITH (1966)† ..... Physics
M.S.E., Ph.D., University of Michigan

STANLEY T. WILK (1973) ..... Anthropology
B.A., Hunter College; Ph.D., University of Pittsburgh

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* On Sabbatical Fall Semester 1979-80
** On Sabbatical Spring Semester 1979-80
*** On Sabbatical Academic Year 1979-80
† On Leave Academic Year 1979-80

ASSISTANT PROFESSORS

SUSAN K. BEIDLER (1975) ..... Library Services
B.A., University of Delaware; M.L.S., University of Pittsburgh

HOWARD C. BERTHOLD, JR. (1976) ..... Psychology
B.A., Franklin and Marshall College; M.A., The University of Iowa; Ph.D., The University of Massachusetts

GARY M. BOERCKEL (1979) ..... Music
B.M., Oberlin College; M.M., Ohio University; D.M.A., University of Iowa

JON R. BOGLE (1976) ..... Art
B.F.A., B.S., M.F.A., Tyler School of Art, Temple University

JOHN H. CONRAD (1959) ..... Education
B.S., Mansfield State College; M.A., New York University

GARY E. DARTT (1969) ..... Theatre
B.S., Augustana College; M.F.A., University of Minnesota

JACK D. DIEHL, JR. (1971) ..... Biology
B.S., M.A., Sam Houston State College; M.S., Ph.D., University of Connecticut

RICHARD R. ERICKSON (1973) ..... Astronomy and Physics
B.A., University of Minnesota; M.S., Ph.D., University of Chicago

WILLIAM D. FORD (1972)*** ..... English
B.A., Occidental College; M.A., M.F.A., Ph.D., University of Iowa

ROBERT H. FOREMAN (1976) ..... Mathematics
B.S., Youngstown State University; M.S., Illinois Institute of Technology

EDWARD G. GABRIEL (1977) ..... Biology
B.A., M.S., Alfred University; Ph.D., The Ohio State University

FRED L. GROGAN (1977) ..... Political Science
A.B., Bates College; M.A. Arizona State University Ph.D., University of Missouri

THOMAS J. HENNINGER (1966) ..... Director of Computer Services
Mathematics
B.S., Wake Forest College; M.A., University of Kansas

RICHARD A. HUGHES (1970) ..... Religion
B.A., Indiana Central College; S.T.B., Ph.D., Boston University

DAVID N. JEX (1978) ..... Music
B.M., University of Toledo; M.M., Bowling Green State University; D.M.A., Cleveland Institute of Music

MOON H. JO (1975) ..... Sociology
B.A., Valparaiso University; M.A., Howard University; Ph.D., New York University

DAN O. KING (1977) ..... Biology
B.A., University of South Florida; M.A., Ph.D., Indiana University

ELIZABETH H. KING (1956) ..... Business Administration
B.S., Geneva College; M.Ed., The Pennsylvania State University

ELDON F. KUHNS, II (1979) ..... Accounting
B.A., Lycoming College; M.Accounting, University of Oklahoma; C.P.A. (Pennsylvania)

RICHARD J. MORRIS (1976) ..... History
B.A., Boston State College; M.A., Ohio University; Ph.D., New York University

STEPHEN E. ROBINSON (1979) ..... Religion
B.A., M.A., Brigham Young University; Ph.D., Duke University
KAREN L. SALLEY (1976) ..... Psychology
B.S., Arkansas State University; M.A., Ph.D., University of Arkansas
LARRY R. STRAUSER (1973) ..... Sociology
A.B., Lycoming College; M.P.A., University of Arizona
CATHERINE E. STUDIER (1978) ..... Education
B.S., SUNY at Oneonta; Ed.M., Ed.D., University of Georgia
FRED M. THAYER, JR. (1976) ..... Music
A.B., Syracuse University; B.M., Ithaca College;
M.M., SUNY at Binghamton; D.M.A., Cornell University
MARY ELLEN VERZARO (1979) ..... Library Services
B.A., Ithaca College; M.L.S., University of North Carolina at Chapel Hill
H. BRUCE WEAVER (1974) ..... Business Administration
B.B.A., Stetson University; J.D., Vanderbilt University;
M.B.A., Florida Technological University
CHARLES E. WEYANT (1971) ..... Library Services
B.A., The American University; M.S., Simmons College
JOHN M. WHELAN, JR. (1971) ..... Philosophy
B.A., University of Notre Dame;
Ph.D., The University of Texas at Austin
BUDD F. WHITEHILL (1957) ..... Physical Education
B.S., Lock Haven State College;
M.Ed., The Pennsylvania State University
FREDERIC M. WILD, JR. (1978) ..... English
B.A., Emory University; M.A., Ph.D., Ohio State Univeristy;
M.Div., Yale Divinity School
ROBERT A. ZACCARIA (1973) ..... Biology
B.A., Bridgewater College; Ph.D., University of Virginia
MELVIN C. ZIMMERMAN (1979) ..... Biology
B.S., SUNY at Cortland; M.S., Ph.D., Miami University

INSTRUCTORS

DEBORAH J. HOLMES (1976) ..... Physical Education
B.S., The Pennsylvania State University
DIANE M. LESKO (1978) ..... Art
B.A., M.A., SUNY at Binghamton
STEVEN J. McGUIRE (1979) ..... Sociology
B.A., University of Iowa; M.A., SUNY at Stony Brook
JACK D. MURPHY (1978) ..... Mathematics
B.S., M.S., Drexel University
SYED Q. SHAREEF (1979) ..... Business Administration
B.S., Middle East Technical University (Turkey);
M.B.A., University of Cincinnati
LOUISE M. STONE (1978) ..... English
B.A., M.A., University of Michigan

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* On Sabbatical Fall Semester 1979-80
† On Sabbatical Spring Semester 1979-80
‡ On Sabbatical Academic Year 1979-80

NICOLAS J. TOSCANO (1979) ..... Modern Language
Bachiller en letras, Granada University (Spain);
Law degree, University of Madrid
RICHARD D. TROXEL (1978) ..... Mathematics
B.A., Oberlin College; M.A., Indiana University

LECTURER

DON M. LARRABEE II (1972) ..... Lecturer in Law
A.B., Franklin and Marshall; LL.B., Fordham University

PART-TIME INSTRUCTORS

MARY P. BAGGETT (1977) ..... Chemistry
B.A., Regis College; M.A., Wellesley College
CATHLEEN H. HUFFORD (1977) ..... Library Services
B.A., The College of Wooster; M.L.S., Columbia University
BARRY W. SLOTTER (1978) ..... Sociology
B.A., Lycoming College
ANITA H. SOMERS (1977) ..... Mathematics
B.S., University of Tennessee;
M.S., University of North Carolina at Chapel Hill
LINDA L. TOSCANO (1979) ..... Spanish
B.A., Middlebury College; M.S., Syracuse University
TERRY WILD (1972) ..... Art
B.A., Lycoming College; B.F.A., Art Center College of Design

APPLIED MUSIC TEACHERS

WALTER G. McIVER (1979) ..... Voice
M.B., Westminster Choir College
A.B., Bucknell University
M.A., New York University
ALBERT J. NACINOVICH (1972) ..... Brass
B.S. in Music Education, Mansfield State College;
M.S. in Music Education, Ithaca College
SALLY G. NAGEL (1979) ..... Percussion
B.A., University of Toledo
M.M., Cleveland Institute of Music
MARY L. RUSSELL (1936) ..... Piano
M.B., Susquehanna University
M.A., The Pennsylvania State University
JUANITA M. SERANG (1975) ..... Strings
IRENE PECKHAM VELEY (1968) ..... Piano
B.M., Curtis Institute of Music

ADMINISTRATIVE ASSISTANTS

Louise S. Banks ..... Periodicals Assistant in Library
Betty S. Beck ..... Assistant Bookstore Manager
Emily C. Biichle ..... Secretary to the Treasurer
Pauline M. Brungard ..... Student Loan Coordinator
(B.S., Lycoming College)
Shirley M. Campbell ..... Assistant in Treasurer's Office
Marie A. Compton ..... Secretary, Residence Life
Richard L. Cowher ..... Office Services Coordinator
Elizabeth G. Cowles ..... Career Development Secretary
Margaret A. Dewar ..... Secretary in Admissions Office
June L. Evans ..... Secretary in Education Office
Irene Everdale ..... Secretary to Director of Buildings and Grounds
Ruby M. Freezer ..... Faculty Secretary
S. Jean Gair ..... Secretary, Music and Art Departments
Mary A. Gardner ..... Secretary to Athletic Director
Anne S. Gibbon ..... Secretary, Biology and Chemistry Departments
Kitty S. Glosser ..... Secretary to Director of Admissions
Ralph W. Hellan ..... Computer Operations Programmer
(A.B., Lycoming College)
Helen C. Heller ..... Secretary to the Registrar
Mary C. Hendricks ..... Supervisor of Housekeeping
Isabel C. Hess ..... Library Assistant
Bernadine G. Hileman ..... Bulk Mailing Coordinator
Phyllis M. Holmes ..... Secretary to the President
Barbara E. Horn ..... Secretary to Athletic Department
Dee A. Horn ..... Secretary to Business Manager/Student Aid Director
Naomi E. Kepner ..... Switchboard Operator
Doris F. McCoy ..... Secretary in Institutional Relations Office
JoAnn McFadden ..... Secretary in Admissions Office
Vivian Meikrantz ..... Secretary to the Dean of the College
Marilyn Mullings ..... Faculty Secretary
Phyllis B. Myers ..... Records Clerk
Marion R. Nyman ..... Cashier/Bookkeeper
Esther Parent ..... Computer Center Secretary
Betty J. Paris ..... Secretary to Director of Institutional Relations
(A.B., Lycoming College)
Marian L. Rubendall ..... Secretary to Dean of Student Services
Patricia J. Triaca ..... Cataloging Assistant in Library
Helen I. Vincent ..... Library Assistant
June Wagner ..... Faculty Secretary
Deborah E. Weaver ..... Damage Assessment Clerk
Geraldine H. Wescott ..... Secretary to the Librarian
Loretta M. Whipkey ..... Secretary to Director of Public Relations
Margaret Wise ..... Secretary in Admissions Office
Cheryl A. Yearick ..... Library Assistant

THE ALUMNI ASSOCIATION

The Alumni Association of Lycoming College has a membership of more than 8,000 men and women. It is governed by an Executive Board consisting of four officers and 21 members-at-large, elected through mail ballot by the membership of the Association. The board also has members representing specific geographic areas of alumni concentration, the senior class president, the student body president, and a representative of the last graduating class. The Association annually nominates one alumni representative for a three-year term on the College Board of Trustees. The Director of Alumni Affairs directs the activities of the Alumni Office.

The Alumni Association has the following purpose as stated in its constitution: "As an off-campus constituency, the Association's purpose is to seek ways of maintaining an active and mutually beneficial relationshp between the college and its alumni, utilizing their talents, resources and counsel to further the objective and program of Lycoming College."

All former students of Williamsport Dickinson Seminary and all former students, who have successfully completed one year of study at Williamsport Dickinson Junior College or Lycoming College shall be members of the Association. Any person who leaves Lycoming College after successfully completing one year and re-enters as a student within four years of his/her initial matriculation, shall not be a member of the Alumni Association while enrolled as a student at Lycoming College.

Acting as the representative of alumni on the campus, and working also with undergraduates, the Alumni Office aids in keeping alumni informed and interested in the program, growth, and activities of the college through regular publications mailed to all alumni on record. Arrangements for Homecoming, Alumni Day, Class Reunions, club meetings and similar activities are coordinated through this office. The Alumni Association promotes group travel programs, supplies back-year class rings, sells water colors and bronze etchings of the campus and alumni chairs.

Through The Lycoming College Fund, the alumni office is closely associated with the development program of the college. Lycoming College holds membership in the Council for Advancement and Support of Education. Communications to the Alumni Association should be addressed to the Alumni Office.

ALUMNI ASSOCIATION OFFICERS AND EXECUTIVE BOARD

President—Mr. John B. Ernst '58—211 Belmont Ave., Doylestown, PA 18901
Vice-President for Campus Affairs—Mr. Kent T. Baldwin '64,
2446 Waldman Drive, Williamsport, PA 17701
Vice-President for Regional Affairs—Mr. Ralph Zeigler '70,
350 Rural Ave., Williamsport, PA 17701
Secretary—Mrs. David Loomis (Eleanor Layton '60),
R.D. #1, Box 167A, Troy, PA 16947
Last Retiring President—Mr. George Nichols '59,
RD #2, Newton Rd., Clarks Summit, PA 18411

Term Expires (June, 1980)

Mrs. Debra Crabbe Hackett '76, P.O. Box 28160, Philadelphia, PA 19131
Dr. Ray D. Fravel '58, 11 E. Union St., Canton, PA 17724
Mr. Seth D. Keller '65, 149 Huffman Ave., Williamsport, PA 17701
Mrs. Frances Gleason Levegood '52, 214 Kendall Ave., Jersey Shore, PA 17740

Rev. David L. Phillips '63, Star Route #2, Shippensburg, PA 17257
Mr. Carl E. Snyder '69, R.D. #3, Box 39, Cogan Station, PA 17728
Miss Ona R. Weimer '49, Box 225, Woolrich, PA 17779

Term Expires (June, 1981)

Rev. H. Emerson Abram '53, Hillcrest Road, Newtown Square, PA 19073
Mr. N. Mark Achenbach '58, 2156 Prospect St., Penfield, NY 14526
Mrs. Barry L. Boyer (Nancy Snyder '64),
2901 Orchard Ave., R.D. #3, Montoursville, PA 17754
Mr. Andrew J. Fedore '77, 710 Prospect Street, Portage, PA 15946
Miss Doris T. Heller '54, 716 Grampian Blvd., Williamsport, PA 17701
Dr. Hess S. Wertz, Jr. '62, 1195 Sheridan Street, Williamsport, PA 17701
Rev. Jay E. Zimmerman '74, R.D. #3, Box 111, Tyrone, PA 16686

Term Expires (June, 1982)

Mrs. Howard F. Chambers (Amy Gehron '70),
48 Ross St., Williamsport, PA 17701
Mrs. Herman S. Horn (Nancy Dorrance '57),
201 N. Broad St., Honeybrook, PA 19344
Mr. Charles K. Post, '57, 9403 Victoria Court, Upper Marlboro, MD 20870
Miss Andrea D. Seuren '76, 117 Warfield Road, Cherry Hill, NJ 08034
Mrs. Larry R. Strauser (Keigh Cronauer '58), R.D. #3, Montoursville, PA 17754
Miss Karen A. Suplee '74, 101 Broad St., Mt. Holly, NJ 08060
Mr. Daniel P. Wright '74, 1204 Tule St., Montoursville, PA 17754

Members of the Board Serving a One-Year Term

Student Association of Lycoming College, President—David G. Argall '80
Senior Class President—Miss Donna Petrizzi '80
Representative of the Class of 1979—Miss Kimberly Kramer '79,
1154 East Cedar St., Allentown, PA 18103

Alumni Representative to Lycoming College Board of Trustees

1980—Dr. Robert L. Morris '55, 545 Oak Street, Indiana, PA 15701
1981—Ms. Onalee R. (Barton '62) Sabin, 513 W. Gray Street, Elmira, NY 14905
1982—Dr. David J. Loomis '61, R.D. #1, Box 167A, Troy, PA 16947

COMMUNICATION WITH THE COLLEGE

This document contains pertinent information about the college, its philosophy, programs, policies, regulations, and offerings. All students and prospective students are urged to read it carefully and completely.

Inquiries of a specific nature should be addressed as follows:

Director of Admissions:

Admission to the freshman class.
Admission with advanced standing.
Re-entry of students to Lycoming College.
Request for catalogs.

Treasurer:

Payment of college bills.
Inquiries concerning expenses.

Director of Student Aid:

Scholarships and loan funds for students in college.
Financial assistance for entering students.

Dean of the College:

Information about faculty and faculty activities.
Academic work of students in college.

Dean of Student Services:

Student activities.
Residence Halls.
Religious life.
Health services.
Academic support services.

Registrar:

Student records.
Transcript requests.
Academic policies.

Career Development Center:

Career Counseling and employment opportunities.

Director of Institutional Relations:

Development, publications, annual fund and gift programs.

Director of Alumni Affairs

Director of Public Relations

Address: LYCOMING COLLEGE, Williamsport, Pennsylvania 17701
Telephone: 326-1951, Area Code 717

All of the provisions in this catalog are effective July 1, 1979.

Lycoming College reserves the right to make any necessary changes in the academic calendar, charges, courses or any other section of this catalog.

ACADEMIC CALENDAR—1979-1980

FALL SEMESTER

August		
26	*Sunday*	– Residence Halls open 10 a.m. to 8 p.m.
27	*Monday*	– Classes begin 8 a.m.
28	*Tuesday*	– Processing of drop/add begins. – Last day for payment of tuition and fees without late charge.
31	*Friday*	– Last day for drop/add without instructor's approval.
September		
3	*Monday*	– Labor Day Recess. Classes suspended.
4	*Tuesday*	– Classes resume 8 a.m.
10	*Monday*	– Last day for drop/add—instructor's approval required for the add. – Last day to elect audit and satisfactory/unsatisfactory grades.
October		
8	*Monday*	– Last day for submission of final grades for courses for which Incomplete grades were recorded in Spring, May and Summer terms.
12, 13, 14	*Fri., Sat., Sun.*	– Homecoming Weekend.
15	*Monday*	– Mid-Semester Deficiency Reports for Freshmen due in Registrar's Office at 12 noon.
19, 20, 21	*Fri., Sat., Sun.*	– Parents' Weekend.
November		
12-16	*Mon.-Fri.*	– Preregistration.
16	*Friday*	– Last day to withdraw from courses with W, WP, WF grades. – Thanksgiving Recess and Review Period begins 5 p.m.
17	*Saturday*	– Residence Halls close 10 a.m.
26	*Monday*	– Classes resume 8 a.m.
December		
14	*Friday*	– Semester ends 5 p.m.
15	*Saturday*	– Residence Halls close 10 a.m.

SPRING SEMESTER

January		
6	*Sunday*	– Residence Halls open 12 noon.
7	*Monday*	– Classes begin 8 a.m.
8	*Tuesday*	– Processing of drop/add begins. – Last day for payment of tuition and fees without late charge.
11	*Friday*	– Last day for drop/add without instructor's approval.

18	*Friday*	– Last day for drop/add—instructor's approval required for the add. – Last day to elect audit and satisfactory/unsatisfactory grades.
February		
15	*Friday*	– Last day for submission of final grades for courses for which Incomplete grades were recorded in the Fall Semester.
25	*Monday*	– Mid-Semester Deficiency Reports for Freshmen due in Registrar's Office at 12 noon.
29	*Friday*	– Spring Recess begins 5 p.m.
March		
1	*Saturday*	– Residence Halls close 10 a.m.
10	*Monday*	– Classes resume 8 a.m.
24-28	*Mon.-Fri.*	– Preregistration.
April		
4	*Friday*	– Last day to withdraw from courses with W, WP, WF grades. – Good Friday. Afternoon classes suspended.
8	*Tuesday*	– Honors Day.
25	*Friday*	– Semester ends 5 p.m.
26	*Saturday*	– Residence Halls close 10 a.m.
May		
2	*Friday*	– Residence Halls open 12 noon for participants in Commencement.
4	*Sunday*	– Commencement.

MAY TERM

May		
5	*Monday*	– Residence Halls open 10 a.m.
6	*Tuesday*	– Classes begin.
9	*Friday*	– Last day for drop/add—instructor's approval required for the add. – Last day to elect audit and satisfactory/unsatisfactory grades.
23	*Friday*	– Last day to withdraw from courses with W, WP, WF grades. – Memorial Day recess begins 5 p.m.
27	*Tuesday*	– Classes resume 8 a.m.
30	*Friday*	– Term ends. Residence Halls close 9 p.m.

SUMMER TERM

June		
1	*Sunday*	– Residence Halls open 12 noon.
2	*Monday*	– Classes begin.

6	*Friday*	– Last day for drop/add—instructor's approval required for the add. – Last day to elect audit and satisfactory/unsatisfactory grades.
27	*Friday*	– Last day to withdraw from courses with W, WP, WF grades.
July		
3	*Thursday*	– Independence Day recess begins 5 p.m.
7	*Monday*	– Classes resume 8 a.m.
11	*Friday*	– Term ends. Residence Halls close 9 p.m.

ACADEMIC CALENDAR 1979-1980

AUGUST

Sun	Mon	Tues	Wed	Thur	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

SEPTEMBER

Sun	Mon	Tues	Wed	Thur	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23 30	24	25	26	27	28	29

OCTOBER

Sun	Mon	Tues	Wed	Thur	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

NOVEMBER

Sun	Mon	Tues	Wed	Thur	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

DECEMBER

Sun	Mon	Tues	Wed	Thur	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23 30	24 31	25	26	27	28	29

JANUARY

Sun	Mon	Tues	Wed	Thur	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

FEBRUARY

Sun	Mon	Tues	Wed	Thur	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	

MARCH

Sun	Mon	Tues	Wed	Thur	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23 30	24 31	25	26	27	28	29

APRIL

Sun	Mon	Tues	Wed	Thur	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

MAY

Sun	Mon	Tues	Wed	Thur	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

JUNE

Sun	Mon	Tues	Wed	Thur	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

JULY

Sun	Mon	Tues	Wed	Thur	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

= Fall and Spring Semesters
= May Term
= Summer Session

CAMPUS FACILITIES

RESIDENTIAL

1. *North Hall* (1965)—146 students in two-room suites with bath.
4. *East Hall* (1962)—Houses chapters of national fraternities and other students. The fraternity units, distinct self-contained, provide dormitory facilities, lounge, and a chapter room for each group. All students share a large social area on the ground floor.
5. *Forrest Hall* (1968)—92 students in two-room suites with bath. Honors Dr. and Mrs. Fletcher Bliss Forrest and Anna Forrest Burfiendt '30, the parents and sister of Katherine Forrest Mathers '28, whose generosity established the memorial.
6. *Crever Hall* (1962)—126 students in two-room suites with bath. Honors the College's founder and first financial agent, the Rev. Benjamin H. Crever, who helped persuade the Baltimore Conference to purchase the institution from the Williamsport Town Council in 1848.
8. *Wesley Hall* (1956)—144 students. Honors the Founder of Methodism.
9. *Rich Hall* (1948)—105 students in two-room suites with bath. Honors the Rich family of Woolrich, Pennsylvania. Houses the college health service and the Sara J. Walter non-residents lounge.
11. *Asbury Hall* (1962)—154 students. Honors Bishop Francis Asbury, the father of The United Methodist Church in America, who made the circuit through the upper "Susquehanna District" in 1812, the year the Williamsport Academy (now Lycoming) opened its doors.
18. *Skeath Hall* (1965)—212 students. Honors the late J. Milton Skeath, professor of psychology and four-time dean of the institution from 1921 to 1967.

ACADEMIC

12-15. *The Academic Center (1968)*

12. Laboratories and Arena Theatre—Language, business, mathematics, and physics laboratories; Detwiler Planetarium; 204 seat thrust-stage arena theatre; 90 seat Alumni Lecture Hall.
13. *Faculty Office Building*—69 faculty offices, seminar rooms, 735 seat lecture hall.
14. *Wendle Hall*—Spacious Pennington Lounge is an informal meeting place for students and faculty. Psychology laboratories, 20 classrooms.
15. *Library*—Can accommodate 700 students in a variety of study and reading situations, has a capacity of 250,000 volumes, computer center and photographic laboratories.
2. *Art Center* (1965)—Studios and art gallery.
3. *Fine Arts Building* (1940)—Art Studios.
21. *Science Building* (1957)—Chemistry and biology lecture rooms, laboratories, offices.

CHAPEL

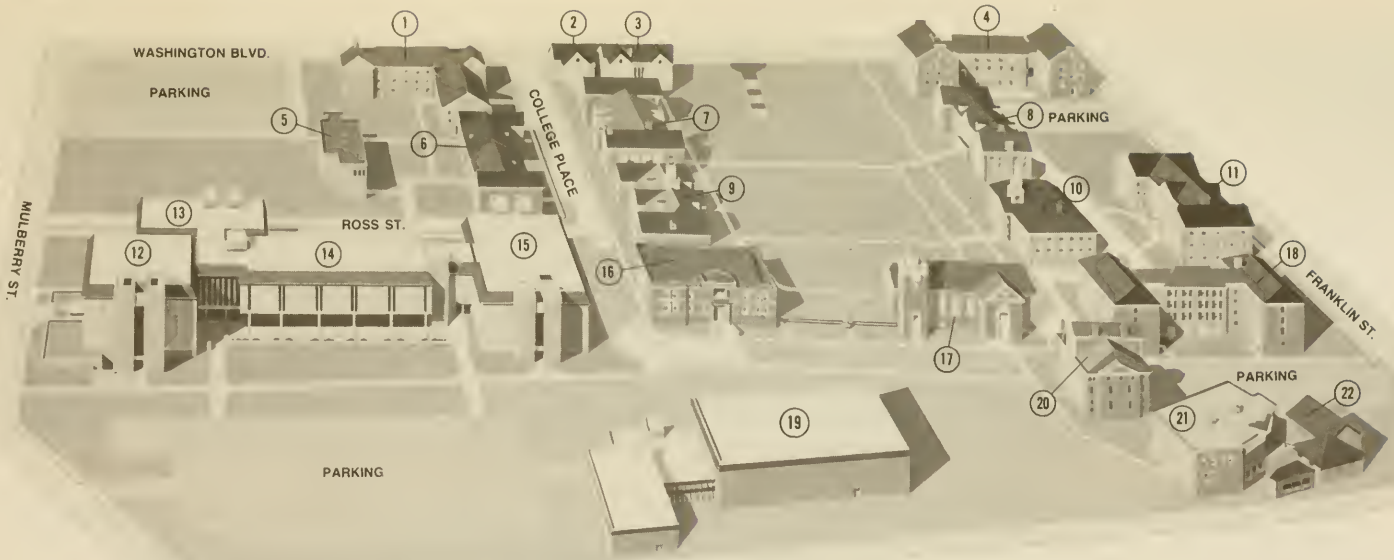
17. *Clarke Chapel* (1939)—Worship services and other events in auditorium; classrooms, studios and music department faculty offices on ground floor.

ADMINISTRATION

10. *John W. Long Hall* (1951)—College administration offices: President, College Deans, Treasurer, Registrar, Admissions, Alumni Affairs, Public Relations, Career Development Center, Publications, Development, and Financial Aid. Reception area, central communications, printing and bulk mail services.
22. *Maintenance.*

RECREATION

7. *Wertz Student Center* (1959)—Dining room, Burchfield Lounge, recreation area, game room, music room, book store, post office, and student organization offices. Honors Bishop D. Frederick Wertz, president of Lycoming from 1955 until 1968.
16. *Gymnasium* (1923)—Basketball and other courts, swimming pool, bowling alleys, physical education offices.



CAMPUS FACILITIES

1. *North Hall
2. Fine Arts II
3. Fine Arts I
4. *East Hall
5. *Forrest Hall
6. *Crever Hall
7. Wertz Student Center
8. *Wesley Hall
9. *Rich Hall
10. Long Hall
11. *Asbury Hall

12-15. ACADEMIC CENTER

12. Arena Theatre
13. Faculty Offices
14. Wendle Hall
15. Library
16. Gymnasium
17. Clarke Building
18. *Skeath Hall
19. Physical Education/ Recreation Center (1980)
20. Bradley Hall
21. Science Building
22. Maintenance

*Residence Halls

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